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THE LAKE TAHOE STUDY ... AS REQUESTED BY THE 92ND CONGRESS IN SECTION 114 OF THE FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

Environmental Protection Agency
San Francisco, California

1975

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An extensive analysis of Federal and state agency activities and authorities is presented and it reveals the scope and depth of involvement. Intergovernmental problems are identified in the areas of water supply and sewerage services, transportation, air quality and water quality. The most serious of these problems is the protection of water quality in Lake Tahoe by means of control of erosion and surface water runoff. Federal oversight and control in the management of public lands is adequate to preserve the fragile ecology of Lake Tahoe. It is not adequate on private lands.

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The Lake Tahoe Study

... as requested by the 92nd
Congress in Section 114 of
The Federal Water Pollution
Control Act Amendments
of 1972

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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SPRINGFIELD, VA. 22161

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PREFACE

A study of the Federal, State, and local institutional relations in managing a complex and dynamic ecosystem such as Lake Tahoe is necessarily bounded by time. The Lake Tahoe Study presented herein is focused on the period 1973 and early 1974. The Study recognizes certain institutional and environmental problems extant in 1973 and 1974, and formulates policy options to remedy the problems identified at that time.

The Lake Tahoe Study makes recommendations for the consideration of the U.S. Congress. However, many of the issues identified in 1973 and 1974 are amenable to resolution by Federal and state administrative action, state legislative action, legal decision, and private incentive. Significant progress toward the resolution of certain problems has occurred; major actions taken since publication of the Draft Lake Tahoe Study in May 1974 are presented below.

1. AREAWIDE WASTE TREATMENT MANAGEMENT PLANNING - Pursuant to Section 208 of the Federal Water Pollution Control Act, the states of California and Nevada in March, 1974 mutually designated the Lake Tahoe Basin as an areawide planning area and the Tahoe Regional Planning Agency as the areawide planning organization. In August, 1974, EPA approved the states' designations and thus made possible a 100% grant of Federal Funds to accomplish the development of an areawide waste treatment management plan for the Lake Tahoe Basin. On December 23, 1974, EPA offered a grant in the amount of $650,000 to TRPA for a two year period, and on January 2, 1975, TRPA accepted the grant offer and initiated the planning process.

The 208 planning program now underway in the Lake Tahoe Basin is principally devoted to erosion control and surface water management for the purpose of preventing nutrient enrichment and consequent accelerated eutrophication of the crystal clear waters of Lake Tahoe. The plan is being developed by TRPA in close cooperation with EPA and States of California and Nevada, and will result in a implementable program to rectify many of the water quality problems noted in this Study and provide the basis for a long term program of watershed management designed to preserve the ecological integrity of Lake Tahoe.

2. LAND ACQUISITION - The U.S. Forest Service, using funds from the Land and Water Conservation Fund, has recently acquired several key parcels of land in the Tahoe Basin:

(a)	Fibreboard Properties:	10,121 acres	$9,925,000
(b)	Meeks Bay Resort:	645 acres	$3,100,000
(c)	Cascade Lake:	140 acres	$ 600,000

These acquired lands increase the Federal holdings in the Lake Tahoe Basin from 57% to 63% of the total land area. The acquired lands will be managed as National Forest under the "General Plan for the National Forest Lands."

3. LEGAL SITUATION - On January 10, 1975, the U.S. District Court in Reno, Nevada ruled in favor of the Tahoe Regional Planning Agency in five separate inverse condemnation cases against the Agency. The court order absolves the counties of legal responsibility for TRPA's actions. This important order removes a major "shadow" from the local officials and clears the way for more effective TRPA - local government cooperation and coordination.

The Court found that the alleged loss of land values alone is insufficient to plead unconstitutionality of the Land Use Ordinance. The Court clarified the administrative procedures and administrative remedies of the TRPA ordinances which may minimize the rash of premature lawsuits alleging a taking of private property. The Court also held that TRPA has no legal power of eminent domain under the Compact; and, therefore, is not subject to suit for inverse condemnation. If further tested and upheld, this decision will have very important benefits in promoting the utilization of ecologically based land use planning.

4. COMPACT AMENDMENTS - Legislation to amend the Tahoe Regional planning Compact has been introduced in the legislatures of Nevada and California. Recognizing the national values of Lake Tahoe and the specific interests of each state, the legislators from California and Nevada are closely coordinating their efforts to jointly and concurrently move legislation towards passage. The immediate legislation being considered does not contemplate a full scale revision to the Compact; rather it would authorize the states to increase the size of the TRPA Governing Body by two members from each state. Nevada has passed a bill (S.B.254) which designates the Nevada State Attorney General and the Nevada Secretary of State as additional members. California is considering a companion bill (A.B.2438) which would also provide for increased members. At such time as the California legislation is signed, the Compact amendments would be presented to Congress for ratification.

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ACKNOWLEDGEMENTS

The Lake Tahoe Study was prepared under the direction of Paul De Falco, Jr., Regional Administrator, EPA, Region IX. John Wise served as the study manager and principal author, Linda Goldman assisted with research analysis, and Mary Doss typed the original manuscript.

During the course of this Study, EPA benefited greatly from the willing cooperation of many agencies, groups, and individuals. Special recognition is extended to Douglas Leisz, Presidential Appointee to TRPA; Richard Heikka, Executive Officer of TRPA; the Forest Service Planning Team, Lake Tahoe Administrative Unit; and the Tahoe Research Group, University of California, Davis. Special thanks are offered to the interested citizens and groups who provided valuable insight, advice, and testimony to EPA at the public meetings; and to the state and Federal agencies who provided valuable information to EPA in the Task Reports.

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SUMMARY

The Lake Tahoe Basin lies high in the Sierra Nevada directly astride the California-Nevada stateline. Lake Tahoe is one of the world's few primordially pure large alpine lakes, and is renowned for the unusual clarity of its waters.

The Lake Tahoe is a geohydrologic rarity -- an ecosystem in which the integrity of the land directly determines the quality of the waters. The Tahoe Basin exhibits environmental and ecological values which are irreplaceable; however, increasing urbanization of the private lands is threatening these values.

The Tahoe Regional Planning Agency (TRPA) has been constituted under the Tahoe Regional Planning Compact to "adopt and enforce a regional plan of resources conservation and orderly development, to exercise effective environmental controls....." for the private lands in the Tahoe Basin. TRPA has instituted a highly innovative planning program, but has achieved mixed success in implementing the plans. TRPA is currently beset with serious financial and legal problems. Moreover, basic deficiencies in the Compact have constrained TRPA from operating at full effectiveness.

The Federal interest and presence in the Tahoe Basin is substantial. Roughly 57% of the land area is owned by the U. S. Government and is administered as National Forest. Significant interactions occur between the public lands and the private lands.

An extensive analysis of Federal and state agency activities and authorities is presented and it reveals the scope and depth of involvement. To a large extent, events at Tahoe are strongly influenced by Federal and state agencies. Intergovernmental problems are identified in the areas of water supply and sewerage services, transportation, air quality, and water quality. The most serious of these problems is the protection of water quality in Lake Tahoe by means of control of erosion and surface water runoff. Continued transport of sediment and nutrients to Lake Tahoe portends that the clarity of Lake Tahoe will not be maintained.

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Under the general direction of the Presidental Appointee to the TRPA Governing Body, the Federal agencies have acted to coordinate their actions. However, Federal coordination has been hampered by the lack of a definitive Federal policy towards Lake Tahoe.

The assessment of the "adequacy of Federal oversight and control in order to preserve the fragile ecology of Lake Tahoe" proceeds from two perspectives and yields the following two conclusions:

1. Federal oversight and control in the management of the public lands is adequate to preserve the fragile ecology of Lake Tahoe;

2. Federal oversight and control of activities on the private lands is inadequate to preserve the fragile ecology of Lake Tahoe.

There is therefore a clear "necessity for redefinition of legal and other arrangements" to resolve the apparent dichotomy of adequacy between public management of public lands and public regulation of private lands. Recommendations to resolve these problems follow.

RECOMMENDATIONS

In Chapter IX, a wide range of tools and options are set forth to resolve the intergovernmental problems and environmental impacts identified in this Study. Chapter IX contains discussion and analysis of Federal policy, changes in statutes, and Federal and state agency administrative action on topics ranging from pollution controls and land acquisition to intergovernmental coordiantion.

From the extensive options presented in Chapter IX the Environmental Protection Agency, in consultation with the Federal and state agencies, the Tahoe Regional Planning Agency, and members of the public, has formulated specific recommendations to Congress.

EPA recommends that Congress give consideration to:

1. Designating the Lake Tahoe Basin as an "area of national environmental significance," and declaring a Federal Policy towards the preservation of the ecological integrity of Lake Tahoe. A proposed Federal Policy is presented immediately following these recommendations.

2. Authorizing an extensive study of projected future conditions in the Lake Tahoe Basin for the purpose of assessing the potential social, economic, and environmental impacts of further urbanization.

3. Convening an appropriate committee of Congress to hold public oversight hearings, scheduled during each session of Congress and held at a location in the Tahoe Basin, for the purpose of insuring that the national interest is being served by the Federal agencies under the Federal Policy and by the Tahoe Regional Planning Agency under the Tahoe Regional Planning Compact.

4. Encouraging the states of California and Nevada to consider the following types of modifications to the Tahoe Regional Planning Compact:

   a) Provide that a simple majority of the governing body members present shall be required to take action with respect to any matter.

   b) Provide for alternative and flexible financing of the operations of TRPA.

   c) Provide that all development proposals from either state would receive equal treatment under the Compact.

   d) Provide that TRPA evaluate the environmental impact of its policies and plans, with such analyses being reported annually to each State legislature and to Congress. Provide for periodic reports on environmental trends and conditions at Lake Tahoe.

PROPOSED FEDERAL POLICY

It is found and declared that:

1. The Federal interest in the Lake Tahoe Region is substantial and includes:
    - a) ownership of 57% of the land area administered as National Forest,
    - b) ultimate responsibility to attain and maintain the National Ambient Air Quality Standards, including prevention of significant deterioration of existing high quality air,
    - c) responsibility to oversee the states' implementation of Water Quality Standards for the navigable waters of Lake Tahoe, including a policy of non-degradation,
    - d) approval of all works constructed in or over the navigable waters of Lake Tahoe, and
    - e) management of Lake Tahoe-Truckee River water resource in accordance with court decrees.
2. The Tahoe Regional Planning Agency is duly constituted under the Tahoe Regional Planning Compact to "adopt and enforce a regional plan of resources conservation and orderly development, to exercise effective environmental controls ...." for the private lands in the Tahoe Region.
3. The Tahoe Region exhibits significant interaction between public lands and private lands.
4. The Tahoe Region exhibits environmental and ecological values which are irreplaceable.
5. Maintenance of the social and economic health of the Tahoe Region depends upon maintaining the high quality scenic and environmental experience.

6. Increasing urbanization is threatening the ecological values of the Tahoe Region and threatening the public opportunities for the use of public lands.

Therefore, it is the policy of Congress that:

1. Lake Tahoe and the surrounding basin lands are declared an area of national environmental significance.

2. The Tahoe Regional Planning Agency, acting under authority vested by the Tahoe Regional Planning Compact, is the most appropriate institution to plan for and regulate the use of private lands in the Tahoe Region.

3. The Federal government, through its constituent agencies, shall coordinate its activities so as to provide technical and financial assistance to the Tahoe Regional Planning Agency to achieve the mandate of the Compact.

4. The Federal agencies are directed to program their activities in the Lake Tahoe Basin to support state efforts to achieve the following goals and objectives:

    a) Protect the present unique natural qualities of the waters of Lake Tahoe and the tributary lakes and streams, and prevent the degradation of such high quality water.

    b) Maintain the present high air quality, and prevent the significant deterioration of air quality.

    c) Protect and maintain the native vegetative cover with emphasis on maintaining the diversity and vigor of natural plant communities.

    d) Protect and maintain fish and wildlife habitats with emphasis on marshes, meadows, and stream environment zones.

e) Manage the Federal lands for multiple use purposes while protecting scenic and other environmental qualities.

f) Seek an optimum public land ownership pattern to provide increased public access and use of lands for outdoor recreation, to protect scenic and open space values, and to protect critical watersheds and fish and wildlife habitats.

g) Provide a variety of recreational opportunities for people of all economic levels consistent with the constraints imposed by the natural capabilities of the land and within the limitations of use which will insure a high quality recreation experience.

h) Provide for a variety of resource use opportunities consistent with the constraints imposed by the natural capabilities of the land.

i) Preserve and protect the cultural resources, including archaeological, historical, and natural landmarks.

5. All public funds allocated to the Lake Tahoe Basin for the purpose of assisting local governments in providing utilities or services shall be conditioned upon an assurance that the public lands (and development thereon) shall be adequately served.

6. The maximum amount of public participation in the Federal decision process shall be provided and permitted.

INTRODUCTION AND PURPOSE

Lake Tahoe and the surrounding basin lands are a unique scenic and recreational resource of regional and national significance. The Lake Tahoe Region is also unique politically, in that governmental authority and jurisdictions are fragmented across an array of Federal, state, regional, and local governmental agencies.

The national interest in preserving the extraordinary natural beauty of Tahoe is best expressed in the Tahoe Regional Planning Compact:[1]

> "It is further found and declared that there is a need to maintain an equilibrium between the region's natural endowment and its man-made environment, to preserve the scenic beauty and recreational opportunities of the region, and it is recognized that for the purpose of enhancing the efficiency and governmental effectiveness of the region, it is imperative that there be established an areawide planning agency with power to adopt and enforce a regional plan of resource conservation and orderly development, to exercise effective environmental controls and to perform other essential functions, as enumerated in this title."

In recognition of the continuing difficulty in achieving the Compact objectives in the context of fragmented governmental operations in the Tahoe Region; Congress, in Section 114 of the Federal Water Pollution Control Act Amendments of 1972[2] directed the Environmental Protection Agency to:

- Conduct a thorough and complete study on the adequacy of and need for extending Federal oversight and control in order to preserve the fragile ecology of Lake Tahoe.

- Examine the interrelationships and responsibilities of the various agencies of the Federal government and State and local governments.

1/ PL 91-148, December 18, 1969, Appendix A

2/ PL 92-500, October 18, 1972, Appendix B

- Consider the effect of various actions (of Federal, State, and local governments) in terms of their environmental impact on the Tahoe Basin, treated as a ecosystem.

- Establish the necessity of redefinition of legal and other arrangements between the various governments.

- Make specific legislative recommendations to Congress.

Congress further directed the EPA to perform the Study in Consultation with the Tahoe Regional Planning Agency, Federal agencies, representatives of state and local governments, and members of the public. Accordingly, each Federal and state agency involved at Lake Tahoe contributed information to EPA by means of a Task Report. Such information provides the basic data for this Study. In addition, views of the public were gathered by means of a two-day public meeting held at Lake Tahoe on September 21-22, 1973.[3] A draft copy of this Study was circulated to each Federal and state agency and to each person who provided input to the public meeting. Comments received are reflected herein.

The Study examines the "environmental impact (of governmental actions) on the Tahoe Basin, treated as an ecosystem." Particular attention is given to the impact on the "fragile ecology of Lake Tahoe." Accordingly, the Environmental impact assessment of agency actions focuses on the natural environmental factors, and is not directly concerned with social and economic aspects.

The Study acknowledges the two basic types of actions which may yield an environmental impact - public actions and private actions. A public action by itself may yield a direct environmental impact. Alternatively, a public action may yield an indirect environmental impact by making a private action possible, or by regulating a private action. Therefore, public agencies are accountable for the impact of their own actions as well as actions they stimulate or regulate in the private sector. Accordingly, the Study focuses on the public sector.

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[3] The Task Reports and Proceedings of the Public Meeting are available for public inspection in Lake Tahoe Study - Open File - at EPA, Region IX, 100 California Street, San Francisco, California 94111

The Study examines the basic legislation of the Tahoe Regional Planning Compact with a view toward identifying issues and problems which may now constrain the effective operation of the TRPA or may inhibit the potential effectiveness of intergovernmental coordination in the Tahoe Region.

The content of the Study that follows includes a brief description of the pertinent social, economic, and environmental factors; a discussion of ecological relationships and environmental impacts, and analysis of the problems generated by the existing intergovernmental relations; an analysis of other problems; and a series of tools and options designed to resolve the identified problems.

THE TAHOE BASIN

LOCATION

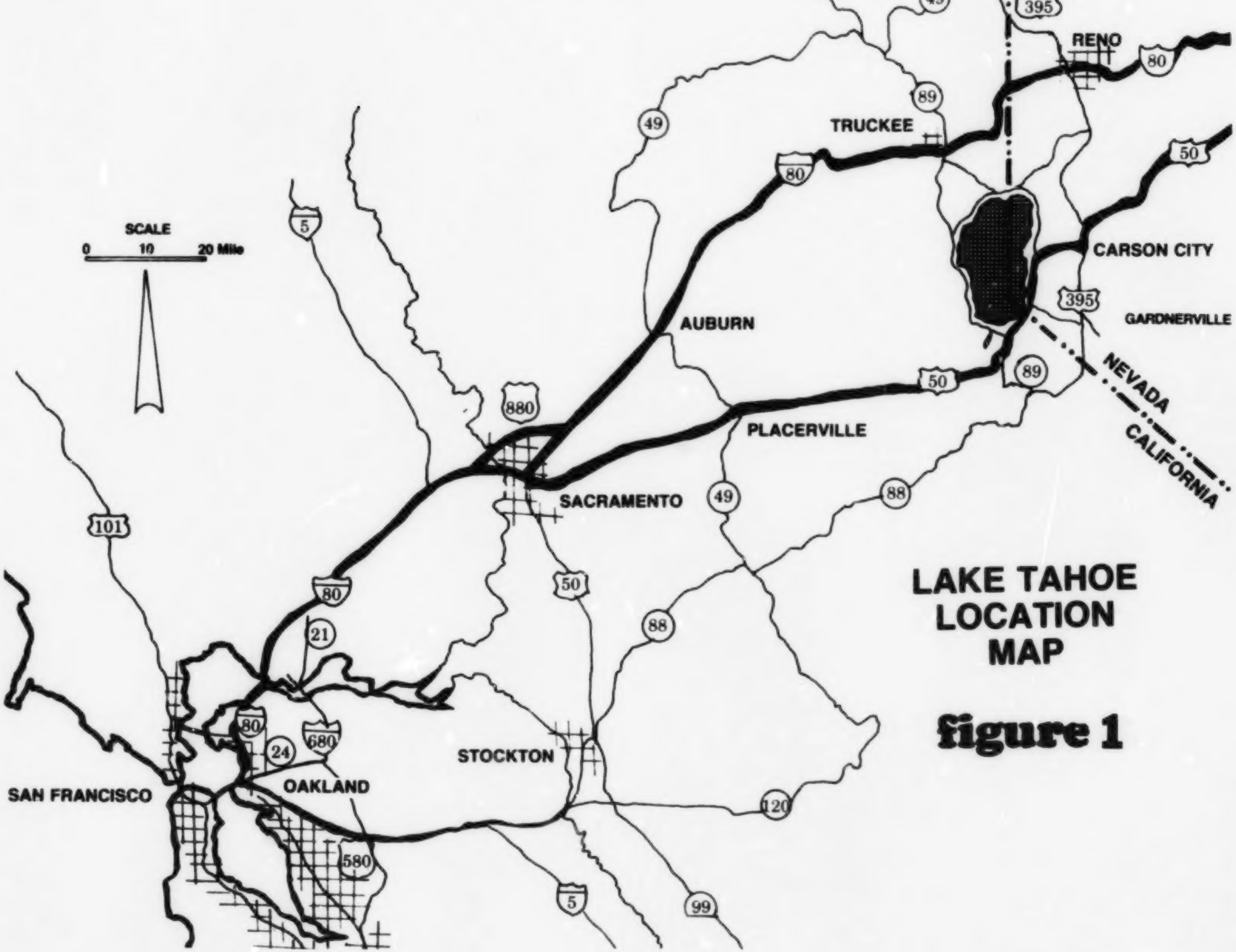
The Lake Tahoe Basin lies high in the Sierra Nevada and occupies an area bounded by the main range of the Sierra Nevada on the west and the Carson Range to the east. The California-Nevada stateline passes through the basin such that roughly two-thirds is in California and one-third is in Nevada.

The geographic relation of the Tahoe Basin to principal population centers is most significant in that a large portion of the "demand" for the scenic and recreation resources of the Tahoe Basin originate from these centers. Figure 1 illustrates the proximity of the San Francisco Bay Area, Sacramento, and Reno. Primary transportation access from these centers to the Tahoe Basin is provided by Interstate-80 to the north shore and U.S.-50 to the south shore. Air access is provided by two small airports, one near Truckee for private planes only, and one at South Lake Tahoe which serves commercial aircraft.

The geographic relation of the Tahoe Basin to its immediate surroundings is also most important. Figure 2 illustrates the network of highways which service traffic into the Basin, and the routes which circulate traffic around the Basin. Figure 3 illustrates the hydrologic system, which links the California Sierras to the Nevada Great Basin; and which links Lake Tahoe to the Truckee River, the Carson River, and to Pyramid Lake. Figure 4 illustrates in larger scale the geographic relation of Lake Tahoe to areas immediately outside the Basin.

PHYSICAL GEOGRAPHY

Lake Tahoe is one of the world's few primordially pure alpine lakes, and is renowned for the unusual clarity of its waters. Only two other sizable lakes are known to be of comparable quality: Crater Lake in Oregon, and Lake Baikal in the Soviet Union.


49
395
RENO
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TRUCKEE
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SCALE
0 10 20 Mile
CARSON CITY
395
GARDNERVILLE
AUBURN
89
NEVADA
CALIFORNIA
50
880
PLACERVILLE
SACRAMENTO
49
88
101
50
80
88
21
80
680
24
STOCKTON
SAN FRANCISCO
OAKLAND
120
580
5
99

LAKE TAHOE
LOCATION
MAP

figure 1

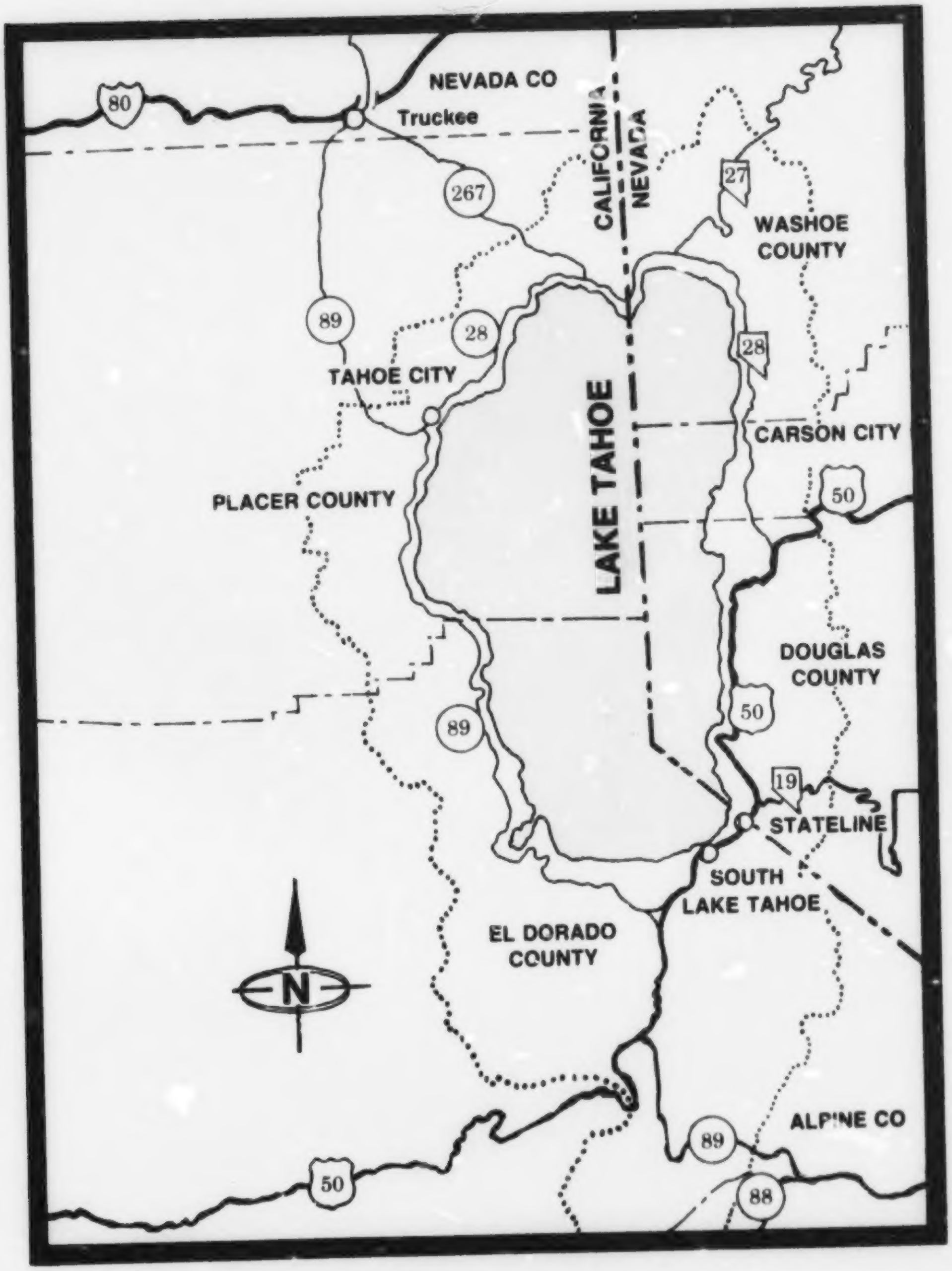

NEVADA CO
80
Truckee
CALIFORNIA
NEVADA
267
27
WASHOE COUNTY
89
28
28
TAHOE CITY
LAKE TAHOE
CARSON CITY
PLACER COUNTY
50
DOUGLAS COUNTY
50
89
19
STATELINE
SOUTH LAKE TAHOE
EL DORADO COUNTY
N
ALPINE CO
89
50
88

figure 2

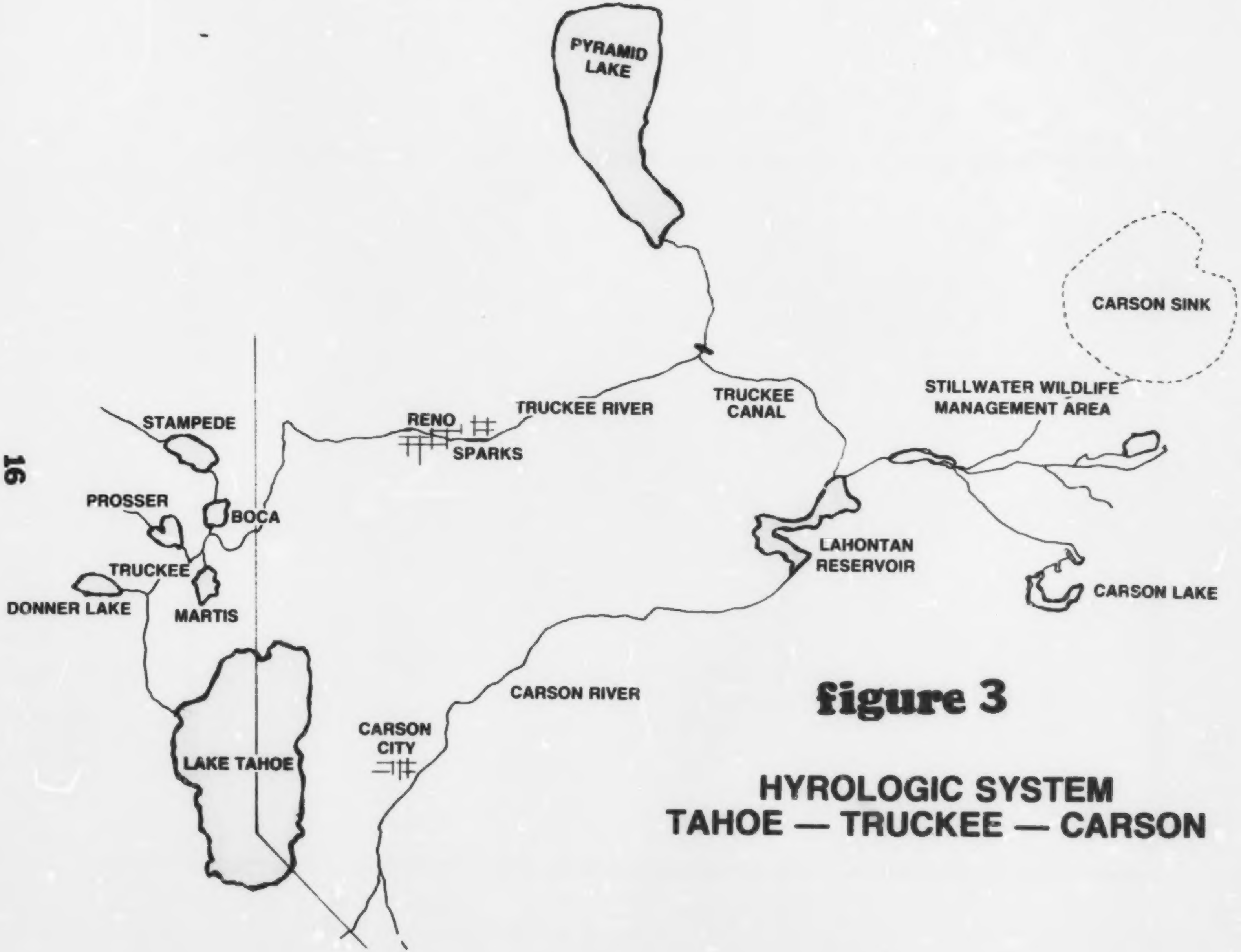

PYRAMID LAKE
CARSON SINK
STILLWATER WILDLIFE MANAGEMENT AREA
TRUCKEE CANAL
TRUCKEE RIVER
RENO
SPARKS
STAMPEDE
PROSSER
BOCA
TRUCKEE
DONNER LAKE
MARTIS
LAHONTAN RESERVOIR
CARSON LAKE
CARSON RIVER
CARSON CITY
LAKE TAHOE

figure 3

HYROLOGIC SYSTEM
TAHOE — TRUCKEE — CARSON

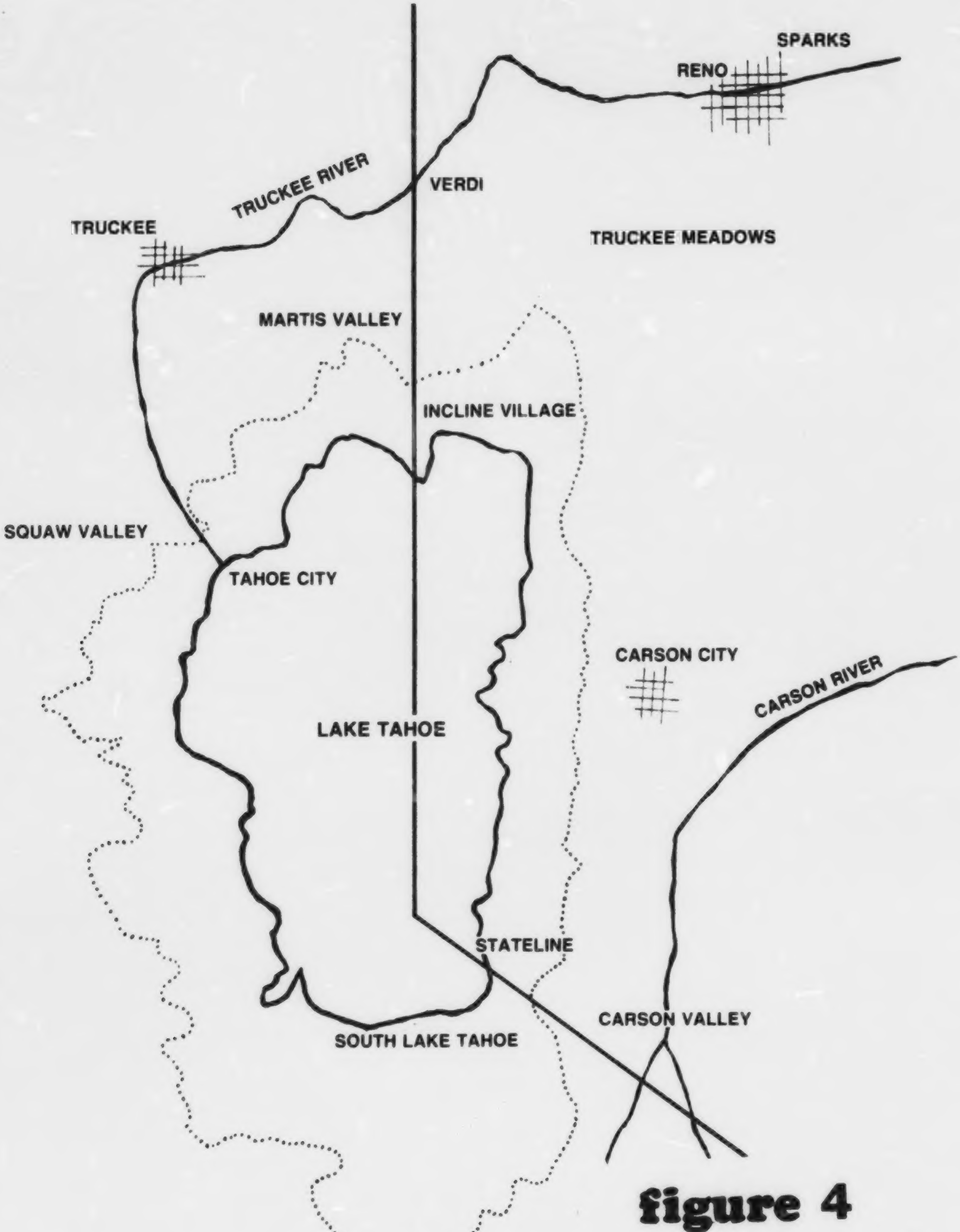

SPARKS
RENO
TRUCKEE RIVER
VERDI
TRUCKEE
TRUCKEE MEADOWS
MARTIS VALLEY
INCLINE VILLAGE
SQUAW VALLEY
TAHOE CITY
CARSON CITY
CARSON RIVER
LAKE TAHOE
STATELINE
CARSON VALLEY
SOUTH LAKE TAHOE

figure 4

Measurements and statistics are inadequate indices of the overwhelming physical presence of the Lake and its incomparable setting. The Tahoe Basin extends over an area of 506 square miles (324,000 acres), and ranges from an elevation of 6,229 feet at the lake surface to 10,881 feet at Freel Peak. The surface area of Lake Tahoe is 191 square miles (122,000 acres), and the surface area of the contributing watershed is 315 square miles (202,000 acres).

The Lake Tahoe Basin is a geo-hydrologic rarity. The factors of altitude, geology, climate, topography, and hydrology all determine the unique Tahoe environment - an environment in which the integrity of the land directly determines the quality of the waters.

The geologic landscape of Tahoe was created over millions of years by the processes of uplifting, volcanism, glaciation, erosion, and deposition. The Basin is a graben formation which was created by a large block of the earth's crust dropping between two up-faulted mountain systems - the Sierra Nevada on the west and the Carson Range on the east. Rocks of volcanic origin generally appear in the north and northwest portions of the basin, and rocks of granitic origin generally outcrop on the east and south portions. Gouging by glacial ice formed the troughs now occupied by Emerald Bay, Fallen Leaf Lake, Cascade Lake, and many smaller lakes and ponds. The processes of erosion and deposition are important in the geologic time frame, but more important in the human time frame since these are the major forces at work changing the Tahoe landscape.

The climate is influenced by marine air masses moving inland from the Pacific Ocean. As the air masses rise over the crest of the Sierra Nevada, most of the moisture is dropped resulting in annual average precipitation of 50 inches on the western edge of the basin dropping to about 30 inches on the west shore of the lake and to about 20 inches on the east shore. High elevations and cool temperatures result in a short growing season of about 70-120 frost-free days per year.

Most of the precipitation occurs as snow in the winter months. It is not uncommon for warm rains to occur in the winter and spring seasons causing rapid snowmelt and flooding. The summer season is generally long and dry, occasionally marked by afternoon thunderstorms which may cause localized flooding.

The topography of the basin is generally quite steep; about one-half of the land has a slope steeper than 20 percent. Only about 70 square miles (45,000 acres) of land lie at slopes gentler than 10 percent, with most of this land situated at the south end of the lake.

The hydrology is a function of both climatic factors and topography. Runoff from rainfall and snowmelt is channeled directly to Lake Tahoe through 65 separate watersheds. These tributary streams are most important as they provide the linkage between the land and soils and the water quality of the lake. An estimated annual hydrologic budget of the Lake Tahoe Basin is shown in Figure 5. This budget must be viewed with care as it does not reveal the seasonal timing of runoff nor the rate of runoff in any particular watershed. In addition, it should be noted that a major component of the hydrologic budget is the precipitation on and the evaporation from the lake surface.

The resulting sum of hydrologic inputs and outputs is the change in outflow to the Truckee River, or alternatively, change in storage in the lake. The natural level of the outlet from the lake is 6,223 feet; however, a low dam located at the Truckee River outlet at Tahoe City, California, provides for regulation of the lake surface for the purpose of water storage. The lake surface ranges from 6,223 to 6,229 feet, depending on the quantity of inflow and operation of the gates at the Tahoe City dam. The total quantity of water subject to regulation is about 745,000 acre-feet.

Altitude, climate, and topography are the principal determinants of air quality within the Tahoe Basin. The topographic factors that determine the hydrologic basin also determines the air basin. The daily variations in temperature due to the high altitude, in combination with the bowl shape of the basin, produce a "drainage effect" whereby cooler nighttime air drains down the slopes to form an early morning cold air mass over the surface. Dispersion of this morning temperature inversion depends upon warming of the air temperatures to induce vertical mixing, and lateral wind velocities to induce dispersion. The greater intensity of sunlight at the high altitudes increases the probability of the formation of photochemical smog. The lower atmospheric pressure at the high altitude also increase the water vapor in the air which accounts for the hazy conditions frequently found in the basin.

ESTIMATED ANNUAL HYROLOGIC BUDGET FOR LAKE TAHOE BASIN

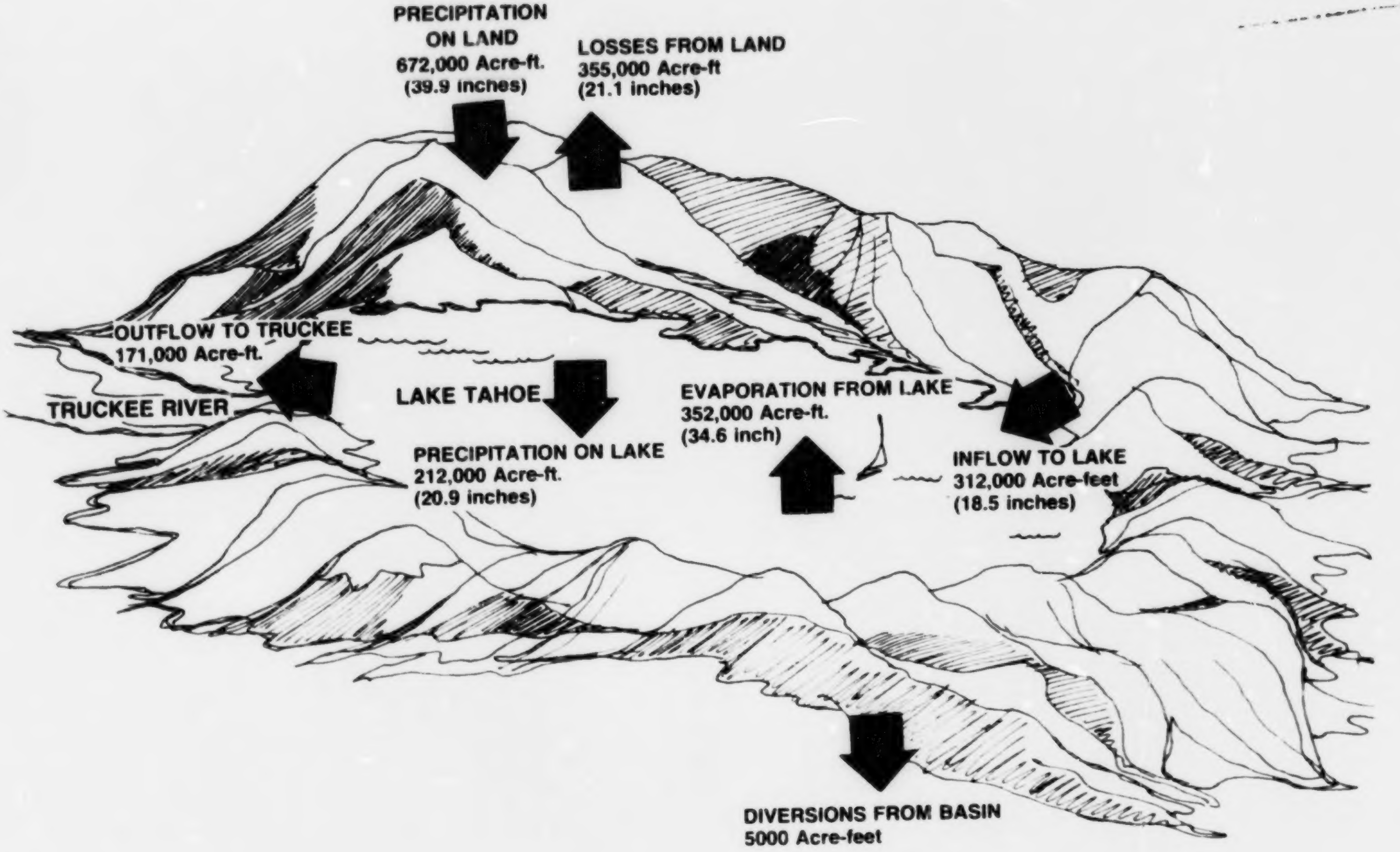

PRECIPITATION
ON LAND
672,000 Acre-ft.
(39.9 inches)
LOSSES FROM LAND
355,000 Acre-ft
(21.1 inches)
OUTFLOW TO TRUCKEE
171,000 Acre-ft.
TRUCKEE RIVER
LAKE TAHOE
PRECIPITATION ON LAKE
212,000 Acre-ft.
(20.9 inches)
EVAPORATION FROM LAKE
352,000 Acre-ft.
(34.6 inch)
INFLOW TO LAKE
312,000 Acre-feet
(18.5 inches)
DIVERSIONS FROM BASIN
5000 Acre-feet

figure 5

On rare, but increasingly frequent occasions, smog flows into the Tahoe Basin from the Sacramento Valley. With steady westerly winds and little vertical mixing or turbulence, smog is blown to the 8000-foot level and over the rim into the Tahoe Basin.

POLITICAL GEOGRAPHY

Governmental jurisdictions in the Lake Tahoe Region are fragmented across an array of local, regional, state, and Federal agencies. The most significant jurisdictional boundary is the California-Nevada stateline. The stateline introduces an element of complexity in an already cumbersome layering of government.

The local political geography of the Lake Tahoe Region is shown on Figure 6. There are six authorities in the Region which possess general powers of local government - the counties of El Dorado and Placer in California; the counties of Washoe, Carson City, and Douglas in Nevada; and the incorporated City of South Lake Tahoe in California. Figure 6 also indicates the location of each county seat with respect to the Tahoe Basin.

In addition to the general purpose governments, there are about 60 other local authorities which exercise more restricted and specialized powers. These special purpose units of government provide the majority of infrastructure services to the Tahoe Basin - water, sewerage, schools, fire protection, and airports, etc. In addition, some districts provide the improvements and utilities for new subdivisions; and some districts provide recreational facilities.

With the general purpose government centers removed some distance from the Tahoe Basin, the special purpose districts provide the only truly local governmental contact for many of the year-round residents of the Region.

The proliferation of local governmental units made officials of both states aware of the need to coordinate governmental functions. Accordingly, the Nevada and California state legislatures created in 1965 a Lake Tahoe Joint Study Committee. In 1967, that Committee recommended the establishment of a permanent bi-state regional planning agency with broad powers.

POLITICAL GEOGRAPHY OF THE LAKE TAHOE BASIN

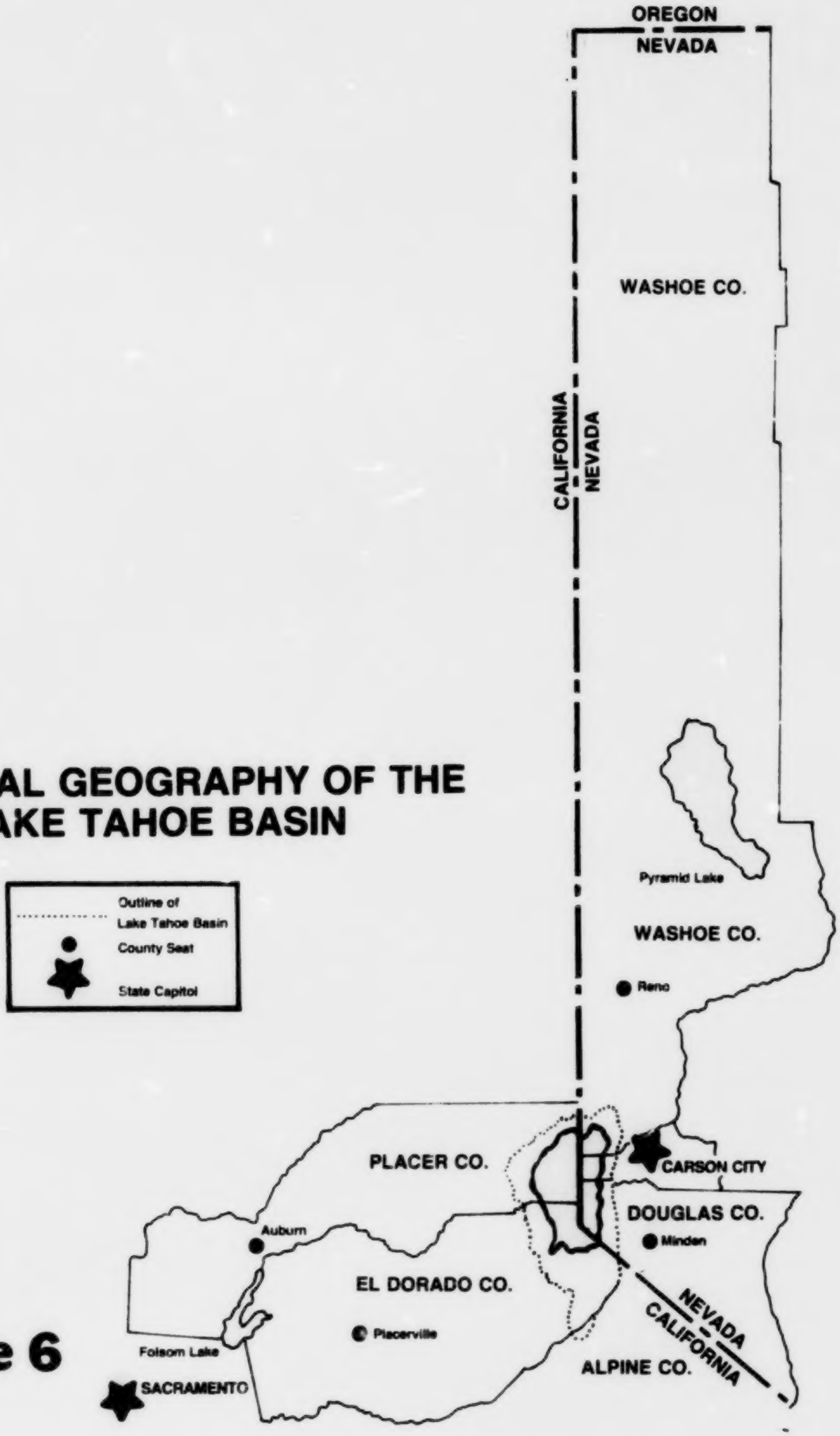

OREGON
NEVADA
WASHOE CO.
CALIFORNIA
NEVADA
Pyramid Lake
WASHOE CO.
Reno
CARSON CITY
PLACER CO.
DOUGLAS CO.
Minden
Auburn
EL DORADO CO.
Placerville
NEVADA
CALIFORNIA
Folsom Lake
ALPINE CO.
SACRAMENTO
Outline of Lake Tahoe Basin
County Seat
State Capitol

figure 6

The Joint Study Committee's report led to enactment by California of the bill creating the California Tahoe Regional Planning Agency (CTRPA) in mid-1967; and enactment by Nevada of a similar statute in 1969 creating the Nevada Tahoe Regional Planning Agency (NTRPA). Both the CTRPA and the NTRPA adopted plans, maps, and ordinances for their respective jurisdictions.

The CTRPA continues to exist under its original mandate; however, with passage of AB 1944 in September 1973 its membership has increased from 5 members to 7 members. The CTRPA generally exercises the same review authority as TRPA with the additional function of review of public works projects in California. The NTRPA authority lapsed when TRPA came into existence in 1970. The NTRPA was reconstituted, however, by legislation enacted in April 1973. The NTRPA now has authority to review and approve only those developments in the Nevada portion of the Tahoe Basin which are outside the review authority of TRPA; specifically, NTRPA will review new proposals for the development of gaming establishments.

The Tahoe Regional Planning Compact was approved by the California and Nevada state legislatures and subsequently ratified by Congress in December 1969 (P.L. 91-148). The Tahoe Regional Planning Agency (TRPA) actually began operations in March 1970 upon proclamation of the Governors. TRPA's task was to formulate and maintain a regional plan and adopt all necessary ordinances, rules, regulations, and policies to implement the plan. Responsibility for implementation and enforcement of the regional plan and ordinances rests with TRPA, the respective states, and the six general purpose local governments.

The TRPA has been designated by the Office of Management and Budget (OMB) as a non-metropolitan regional clearinghouse to perform the A-95 review process. In addition, the Department of Housing and Urban Development (HUD) has certified the TRPA as an "areawide planning organization" which makes the TRPA eligible for Federal planning and grant assistance.

Surrounding and overlapping with the Tahoe Basin are several other regional planning organizations. In Nevada, the Washoe County Area Council of Governments (ACOG) and the Carson River Basin Council of Governments (CRBCOG) both have overlapping jurisdictions with TRPA. In California, the Sacramento Regional Area Planning Commission (SRAPC) has jurisdiction in Placer and El Dorado Counties outside of the Tahoe Basin.

The States of California and Nevada each exercise state responsibilities through various state agencies. A selected listing of the state agencies involved in activities that may affect the environment of the Tahoe Region is presented in Table 1. The activities of these state agencies are discussed in Chapter V.

TABLE 1

SELECTED STATE AGENCIES

STATE OF CALIFORNIA

- Transportation Agency
  - Department of Transportation
  - Department of Aeronautics
- Health and Welfare Agency
  - Bureau of Sanitary Engineering
- Resources Agency
  - Department of Fish and Game
  - Department of Conservation
    - Division of Forestry
    - Division of Mines and Geology
    - Division of Resources Conservation
  - Department of Parks and Recreation
  - Department of Water Resources
  - State Water Resources Control Board
    - Lahontan Regional Water Quality Control Board
  - Air Resources Board
  - State Lands Commission

STATE OF NEVADA

- Department of Human Resources
  - Bureau of Environmental Health
- Department of Conservation and Natural Resources
  - Division of Water Resources
  - Division of State Parks
  - Division of Forestry
- Department of Fish & Game
- Department of Highways

The Federal Government likewise exercises responsibilities and authorities through various Federal agencies. A selected listing of Federal agencies involved in activities that may affect the environment of the Tahoe Region is presented in Table 2. The activities of these Federal agencies are discussed in Chapter V.

TABLE 2

SELECTED FEDERAL AGENCIES

Environmental Protection Agency

Department of Interior
    Bureau of Outdoor Recreation
    National Park Service
    Bureau of Mines
    Bureau of Reclamation
    Fish and Wildlife Service
    U.S. Geological Survey
    Bureau of Land Management

Department of Defense
    U.S. Army, Corps of Engineers

Department of Transportation
    Federal Highway Administration
    Urban Mass Transit Administration
    Federal Aviation Administration
    Coast Guard

Department of Agriculture
    U.S. Forest Service
    Soil Conservation Service
    Farmers Home Administration

Department of Commerce
    National Oceanic and Atmospheric Administration
    Economic Development Administration

Department of Housing and Urban Development
    Federal Housing Administration

Department of Health, Education, and Welfare
    Office of Education

National Aeronautics and Space Administration

National Science Foundation

STATUS OF PLANNING

Planning requirements for the Tahoe Region are principally set forth in the Tahoe Regional Planning Compact. The Tahoe Regional Planning Agency is required to prepare and adopt a Tahoe Regional Plan which consists of the following elements:

> "(1) A land use plan for the integrated arrangement and general location and extent of, and the criteria and standards for, the uses of land, water, air, space and other natural resources within the region, including but not limited to, an indication or allocation of maximum population densities.
>
> (2) A transportation plan for the integrated development of a regional system of transportation, including but not limited to, freeways, parkways, highways, transportation facilities, transit routes, waterways, navigation and aviation aids and facilities, and appurtenant terminals and facilities for the movement of people and goods within the region.
>
> (3) A conservation plan for the preservation, develpment, utilization, and management of the scenic and other natural resources within the basin, including but not limited to, soils, shoreline and submerged lands, scenic corridors along transportation routes, open spaces, recreational and historical facilities.
>
> (4) A recreation plan for the development, utilization, and management of the recreational resources of the region, including but not limited to, wilderness and forested lands, parks and parkways, riding and hiking trails, beaches and playgrounds, marinas and other recreational facilities.
>
> (5) A public services and facilities plan for the general location, scale and provision of public services and facilities, which, by the nature of their function, size, extent and other characteristics are necessary or appropriate for inclusion in the regional plan."

The TRPA has made considerable progress in meeting the mandate of the Compact, despite the occurrence of significant delays in completing various elements of the Regional Plan. The TRPA has adopted:

1. The Land-Use Plan which consists of the General Plan Map and text, and the Land Capabilities Map.
2. The Conservation Plan.
3. The Recreation Plan.
4. Public Services and Facilities Plan.
5. Shorezone Plan.
6. A series of Ordinances designed to implement the adopted plan elements:
    a) Land Use Ordinance
    b) Subdivision Ordinance
    c) Grading Ordinance
    d) Shorezone Ordinance
    e) Timber Harvesting Ordinance
    f) Tree Conservation Ordinance

The Transportation Plan is being prepared in cooperation with the Federal Department of Transportation, the California Department of Transportation, and the Nevada Highway Department. The present work program envisions that an interim transportation element will be completed by April 1975, with a final element completed in 1977. The TRPA has completed the Stateline Sub-Regional Study which addressed the issues of traffic congestion in the Stateline area and recommends various improvements to the local highway and street systems.

The Department of Housing and Urban Development has awarded "701" planning grant funds to TRPA, and accordingly TRPA has prepared:

1. Comprehensive Regional Planning Program - Overall Program Design 1973-1975.
2. Regional Capital Programming Element.
3. Regional Housing Element.
4. Regional Open Space Element.
5. Financial Feasibility: Implementation of the Tahoe Regional Plan.

The land capability approach to land use planning is a most significant development; and the Tahoe Regional Plan is noted for pioneering this concept. The land use plan is based upon environmental information that is the most comprehensive for planning purposes that has yet been made for an ecologically sensitive area such as Tahoe.

The wealth of basic ecological data collected by the various Federal and state agencies, universities and local governments was analyzed, interpreted, and integrated for planning purposes by the Forest Service utilizing the computer data storage and mapping systems developed at the University of California, Berkeley. A determination was made of the natural physical capabilities of the land to withstand disturbance from use and development without serious long-term consequences to water quality and land stability (Land Capability Map). The Forest Service subsequently determined the inherent suitability of land areas for certain types of resource use within the constraints of land capability (Land Suitability Map).

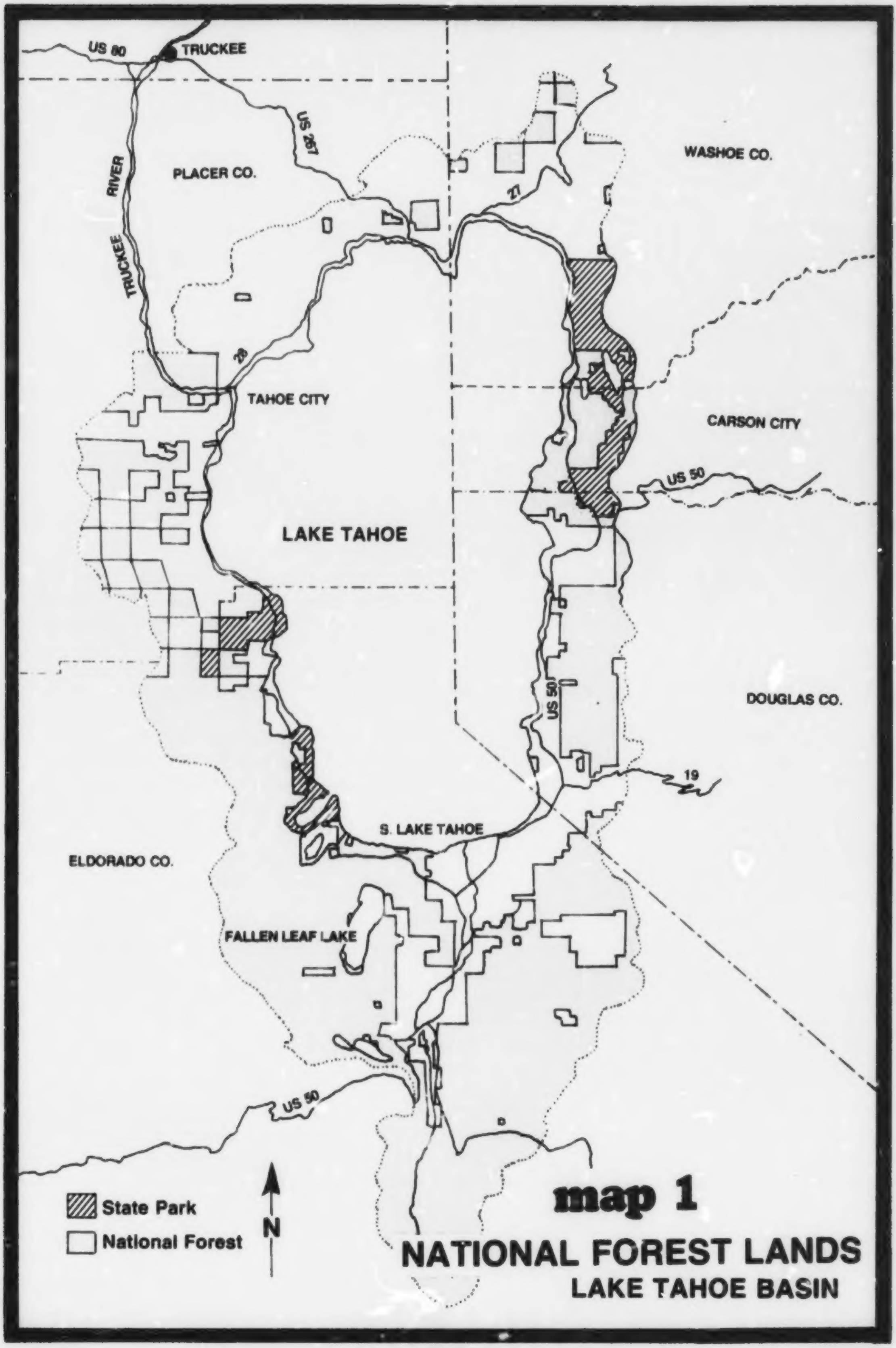
The U. S. Forest Service has issued a draft "General Plan for the National Forest Lands" which provides a framework for the management of National Forest lands in the Lake Tahoe Basin. An Environmental Impact Statement accompanies the General Plan. The management of the Forest lands will be oriented toward recreation opportunities; however, such opportunities will be limited to the environmental capability to sustain recreational uses. The General Plan is based upon the same basic environmental data, land capability and land suitability criteria as the TRPA plans. Moreover, the management objectives of the General Plan for the public forest lands are very closely coordinated with plans and ordinances administered by TRPA for private lands.

LAND OWNERSHIP AND LAND USE

A most important characteristic of the Tahoe Region is the division between public and private lands. At present, the public lands comprise 62% of the basin area: 57% National Forest and 5% State Parks. About 33% of the shoreline is in public ownership. Table 3 displays the land ownership and shoreline miles statistics for the basin as of July 1, 1973.

The largest single landowner in the basin is the U. S. Government. The Forest Service administers 115,739 acres in three National Forests. The Eldorado National Forest and the Tahoe National Forest are located in California; the Toiyabe National Forest is located in Nevada. Effective April 1, 1973, the National Forest lands within the Tahoe Basin are designated as the Lake Tahoe Basin Management Unit.

Map 1 indicates the extent of National Forest land. The ownership pattern ranges from fairly solid in Eldorado Forest to checkerboard in Tahoe National Forest. The National Forest ownership does not extend, for the most part, to the lakeshore; approximately 2.5 miles of beach in the Pope Baldwin area, 6.0 miles in the newly acquired Whittell estate in Nevada, and 0.5 mile at Nevada Beach comprise the extent of federally administered shoreline. The Eldorado Forest contains about 22,300 acres formally designated as the "Desolation Valley Wilderness Area" under provisions of the Wilderness Act of 1964.


US 80
TRUCKEE
US 267
TRUCKEE RIVER
PLACER CO.
WASHOE CO.
27
28
TAHOE CITY
CARSON CITY
US 50
LAKE TAHOE
DOUGLAS CO.
US 50
19
S. LAKE TAHOE
ELDORADO CO.
FALLEN LEAF LAKE
US 50
▨ State Park
☐ National Forest
N

map 1

NATIONAL FOREST LANDS

LAKE TAHOE BASIN

table 3

LAND OWNERSHIP & SHORELINE MILES
AS OF JULY 1, 1973

Public Land Area		Acreage	Miles of Shoreline
Federal			
National Forest			
Eldorado N.F.		85,518	2.5
Tahoe N.F.		12,060	-
Toiyabe N.F.		18,161	6.5
		115,739	9.0
Bureau of Reclamation		64	-
	Total Federal	115,803	9.0
State			
California			
Sugar Pine Pt. State Park		1,975	1.5
D. L. Bliss State Park		957	3.5
Emerald Bay State Park		590	2.5
Tahoe State Recreation Area		13	-
		3,535	7.5
Nevada			
Lake Tahoe - Nevada State Park		6,047	3.5
		6,047	3.5
	Total State	9,582	11.0
	Total Public	125,385	20.0
Private Land Area	Total Private	76,513	51.0
Total Land Area	Total Public & Private	201,898	71.0

The Forest Service has had a long-term program to acquire land needed for public purposes through purchase and exchange of lands. Over the past 70 years, the Forest Service has acquired some 33,800 acres in the Tahoe Basin, primarily through land exchanges. Since 1965, the Forest Service has acquired 21,585 acreas of private land for public use; and has exchanged 754 acres of public land for private uses. Table 4 A,B,C,D display the acres and value of property broken down by time period to correlate with the TRPA plan adoption schedule.

The national forests in the basin are administered for outdoor recreation, range, timber, watershed, and fish and wildlife purposes. Outdoor recreation opportunities provided within the national forest include fishing, hiking, back packing, skiing, camping, and beach activities. Within the Tahoe and Eldorado Forests there are some 600 summer home permittees on annual and term permits up to 20 years on 20 separate tracts with structures ranging from modest cabins to substantial "second homes." The Forest Service also leases one area (Heavenly Valley) to a commercial ski operation.

The State of California administers three state parks and a recreation area: D. L. Bliss, Emerald Bay and Sugar Pine Point Parks; and the Tahoe State Recreation Area. These parks comprise 3,535 acres and 7.5 miles of shoreline. The State of Nevada administers the Lake Tahoe-Nevada State Park which includes within the basin 6,047 acres and 3.5 miles of shoreline.

ACQUISITION BY FOREST SERVICE IN THE LAKE TAHOE BASIN SINCE JANUARY 1, 1965

Period 1/1/65 to 1/1/70 (Pre-TRPA)

	CASE NAME	DATE	E OR P	ACRES	APPROX.VALUE
1.	Geo. A. Pope, Jr.	2/25/65	Exchange	32.52	$ 750,000
2.	Intercounty Title Co.	4/27/65	Exchange	109.16	1,027,000
3.	W.E.& J.H.Rempfer	5/13/65	Exchange	40.00	72,500
4.	J. K. Metzker	6/25/65	Exchange	400.00	650,000
5.	Saxon Crk. Assn.	10/27/65	Exchange	160.	304,000
6.	James A.E. Wilson	11/23/65	Exchange	1,019.8	760,000
7.	A. R. Trimmer	1/6/67	Exchange	320.	500,000
8.	D.M.& E.M. Whitaker	5/29/67	Exchange	80.	247,850
9.	H. Edelstein	8/1/67	Exchange	160.	355,900
10.	A. A. Brown	9/13/68	Purchase	40.	181,000
11.	F.H.& A.E. Dressler	1/28/69	Exchange	160.	56,000
12.	Stanford Alumni	1/31/69	Exchange	118.25	189,200
13.	Adams,Ship & Lacey	2/4/69	Exchange	128.81	261,000
		Subtotal		2,768.54	$5,354,450

table 4A

Period 1/1/70 to 1/1/72 (TRPA Period Prior to Plan Adoption)

	CASE NAME	DATE	E OR P	ACRES	APPROX.VALUE
1.	Glenbrook Co.	6/30/70	Purchase	280.73	$ 760,000
2.	Brockway Tract Assn.	9/14/70	Exchange	320.	157,000
3.	Whittell Est.	10/8/70	Purchase	4,752.50	1,500,000
4.	East Sierra Dev. Co.	10/29/70	Exchange	22.43	600,000
5.	Nature Conservancy	3/11/71	Purchase	48.50	550,000
6.	Hall & Ayres	8/20/71	Purchase	32.01	400,000
7.	Valhalla Inc.	10/21/71	Purchase	8.79	537,500
8.	Yuba River Lbr. Co.	11/5/71	Purchase	440.	220,000
9.	Nature Conservancy	11/15/71	Purchase	280.	300,000
		Subtotal		6,184.96	$5,024,500

table 4B

Period 1/1/72 to 6/30/73 (Since TRPA Adopted Plan)

	CASE NAME	DATE	E OR P	ACRES	APPROX.VALUE
1.	Dreyfus (Whittell)	1/10/72	Purchase	10,452.35	$10,685,000
2.	Co. of Placer	2/11/72	Exchange	6.33	41,000
3.	High Sierra Dev.Co.	6/23/72	Exchange	145.	464,000
4.	Lynn & Wilson	11/9/70	Purchase	1,009.57	218,000
5.	Zeibig & Williams	11/16/72		40.	136,000
6.	Bliss	1/12/73	Purchase	978.177	1,185,000
		Subtotal		12,631.427	$12,729,000
		Grand Total		21,584.93	$23,107,950

table 4C

LAND EXCHANGED OUT OF NATIONAL FOREST OWNERSHIP SINCE 1965

	CASE NAME	DATE	ACRES
1.	Intercounty Title	5/24/65	100.33
2.	Rempfer	6/9/65	30.
3.	James Wilson	12/14/65	202.43
4.	Trimmer	1/25/67	159.83
5.	Stanford Alumni	2/17/69	17.20
6.	Adams	3/6/69	80.00
7.	Calif. Alumni	10/27/67	47.50
8.	Brockway Tract Assn.	9/14/70	26.25
9.	Co. of Placer	3/8/72	10.0
10.	Whitaker	4/19/66	80.0
			753.54

table 4D

Reproduced from best available copy.

ECONOMIC SYSTEM

The economy of the Lake Tahoe Region was originally based on logging and cattle grazing. By the turn of the century, the economic base had shifted to recreation in the form of a few large summer resorts. Residential development was generally limited to large estates and to small home tracts on private and public land at various locations around the lake.

The recreational character of the region assumed new dimensions after 1955 with the establishment of legalized gaming casinos complete with entertainment, convention, and hotel facilities. The 1960 Winter Olympics in nearby Squaw Valley stimulated the development of a winter sports industry. Improved transportation access spurred the growth in summer outdoor recreation, tourism, and gaming; and maintenance of all-weather highways assured the growth in winter sports.

Tahoe can be described as a "recreation destination area." The economy has pronounce seasonal characteristics, and virtually all the jobs are recreation oriented. Employment in gaming, tourist, skiing, and construction industries supply the economic base for a growing number of permanent residents.

While tourism, skiing, and gaming all brought changes to the Tahoe Region; the rising affluence and increased leisure time of the 1960's brought a profound change in the form of recreational land development. The market conditions for recreational land development are ideal at Tahoe - high scenic amenity and 200-mile proximity to major urban areas; and this market has been skillfully exploited such that land development, construction, and real estate now comprise a major component of the economic base.

Most of the developments have been second-home subdivisions. The subdivision approval rate has been consistently three times the actual home construction rate. Increasingly, developments are featuring higher density condominium and townhouse units. There is a trend toward planned recreation communities which include various on-site amenities such as private beaches, swimming pools, golf courses, tennis courts, marinas, and ski lifts.

In the recreational land development boom of the 1960's, local land use planning styles and assumptions could be described as an overzealous desire to capitalize on the scenic and recreation amenities through uncritical accommodation of speculative land development. Rising land values created by the accelerated demand for land produced growing revenues for the local government budgets.

Past practices of zoning at Tahoe have created existing patterns of land use and anticipated future land use which are strongly established and will be difficult to change. The economic interests vested in these past patterns are enormous. The economic adjustments to any new plans or development constraints will be most difficult to accomplish.

The recreational development of Tahoe has produced an economic benefit in terms of property tax revenues, and gaming, construction, and sales receipts. However, such development also has produced economic costs in terms of providing utilities and services, and in terms of environmental degradation.

The Tahoe Regional Plan, adopted December 1971, does not deal explicitly with benefits and costs of development. However, a balancing is implied in that revenue may now be derived only from those lands that are zoned as suitable for development, and assessed valuations have generally been adjusted to reflect the new zoning conditions. The environmental costs are restated by internalizing within each development decision the potential environmental damage. The costs of utilities and services have not been adjusted however. The various special purpose districts now find themselves with bonded indebtedness incurred on the basis of past land valuations which now can be paid only with difficulty because land valuations are now revised.

POPULATION ESTIMATES AND PROJECTIONS

The recreational character of the Tahoe Region makes population estimation and projection a most difficult exercise. Various components of total population are present: permanent residents, seasonal residents, second-home residents, motel/hotel visitors, camper visitors, and day-use visitors. The permanent resident component can be identified with some precision by means of the census; however, these numbers quickly become dated. The other components of total population are highly variable. In view of the dynamic nature of population in the Tahoe Region, a peak seasonal population number is commonly used as the population indicator.

The existing population has been derived by TRPA from census data and economic activity analysis. The total existing population estimate is 107,200, broken down into the following categories:

Permanent residents	26,100
Seasonal residents	10,000
Second-home residents	32,000
Motel/hotel visitors	32,400
Camper visitors	6,700
Total	107,200

Since day-use visitors cannot be derived from land use analysis, an estimate of this component is 22,500. Therefore, an existing peak seasonal population number is about 129,700.

The potential population has been derived from the General Land Use Plan map, the Land Capabilities map, and the General Plan for National Forest lands. The numbers were compiled for each of the 65 watersheds and for each political jurisdiction. The dwelling units/acre allowed for each land use category were modified by the allowable land coverage/acre for each land capability level. Key assumptions regarding % occupancy (80%), % build-out (100%), and persons/dwelling unit for each land use category were applied.

$$\text{Population} = \text{Acres} \times \frac{\text{Adjusted Dwelling Units}}{\text{acre}} \times \%\ \text{Build-out} \times \%\ \text{Occupancy} \times \frac{\text{Persons}}{\text{Dwelling Unit}}$$

The potential population derived by the above analysis is 314,800. This number includes permanent residents, seasonal residents, second-home residents, motel-hotel visitors, and camper visitors; and is therefore comparable to the existing population noted above of 107,200. The potential population by political jurisdiction is shown in Table 5; separate columns show the relative magnitude of potential residential and camper visitors.

TABLE 5

POTENTIAL POPULATION

Derived from Land Use and Land Capability Factors
100% Build-Out   80% Occupancy

JURISDICTION	RESIDENTIAL, HOTEL/MOTEL	CAMPER	TOTAL
Placer County	77,600	16,800	94,400
El Dorado County	53,000	21,800	74,800
City of South Lake Tahoe	70,500	400	70,900
Douglas County	38,400	2,700	41,100
Carson City	0	0	0
Washoe County	33,600	0	33,600
	273,100	41,700	314,800

A potential peak seasonal population must include an additional component of day-use visitors. The number of persons who may visit the Basin is essentially uncontrolled (except perhaps by highway, street, and parking capacity). A "blue sky" estimate of roughly 50,000 people could conceivably visit the Basin which would make the total potential peak seaonsal population equal to 364,800.

Care must be used in reviewing these population numbers as the derivation is based on some key assumptions which could easily change. A 100% build-out and 80% occupancy at full build-out level is an upper limit. There is serious doubt that those levels will ever be reached due to any of several possible (and at this time, uncertain) constraints: available water, transportation access, air pollution regulations, and energy shortages. A rate of growth of population is not implied by these derivations. Although the potential population could be construed as an "ultimate" population, no indication is given as to how fast that level may be reached.

The "ultimate" population is not equivalent to a "carrying capacity" population. TRPA's numbers are principally derived from consideration of land use and land capability. Additional considerations of water supply, air quality, water quality, transportation access, traffic circulation and available energy all need to be worked into the population numbers before a true "carrying capacity" is defined.

INFRASTRUCTURE

Land development and urbanization intimately depend on the availability of an infrastructure of public utilities and services. In the Tahoe Region, all of the traditional elements of infrastructure are present. Due to the geo-hydrologic nature of the Tahoe Basin, water supply and waste disposal assume key roles. Due to the nature of the air basin, traffic circulation systems play a key role.

There are currently 82 separate water purveyors in the Tahoe Region. The sources of water include wells, diversions from Lake Tahoe, diversions from streams, and springs. The size of the water systems vary from 2 to 2,300 customers. All but a few of the present water distribution systems are inadequate, resulting in inadequate domestic service and fire protection.

Wastewater disposal in the Tahoe Region is designed to preserve the pristine clarity of Lake Tahoe. The waters of Lake Tahoe are extremely nitrogen-sensitive; the discharge of wastewaters to Lake Tahoe, even assuming application of the best available treatment technology, would result in the addition of nutrients which would promote accelerated growths of algae leading to the rapid eutrophication of Lake Tahoe. The overriding public interest in maintaining the clarity of Lake Tahoe has been manifest by the following key actions requiring export of all wastewaters.

1. The "Conference in the Matter of Pollution of the Interstate Waters of Lake Tahoe and its Tributaries," sponsored by the States of California and Nevada and the Federal Water Pollution Control Administration (now EPA), held at Stateline, Nevada in 1966, recommended that all sewage effluent be exported from the Tahoe Basin.

2. In 1969, the California Legislature added Section 13951 to the State Water Code, which requires the export of sewage effluent from the Lake Tahoe Basin and prohibits the further maintenance or use of cesspools, septic tanks or other means of waste disposal in the Tahoe Basin after January 1, 1972.

3. Nevada Governor Mike O'Callaghan issued an Executive Order on January 27, 1971, prohibiting the use of septic tanks in the Tahoe Basin after December 31, 1972.

Federal construction grant funds and research and demonstration grant funds have been provided by EPA and EDA, and California has offered loans and construction grants to assist in construction of facilities. Figure 7 indicates the districts in the Tahoe Basin involved with wastewater disposal. Figure 8 shows the location of the treatment plants and export outfalls.

Considerable progress has been made in completing the sewage export systems. In California, virtually all wastewaters are collected, treated, and exported. South Lake Tahoe wastewaters receive advanced waste treatment (tertiary) prior to export out of the Basin to Indian Creek Reservoir. Wastewaters from the west and north shores currently receive primary treatment at Tahoe City prior to being pumped to the Cinder Cone for disposal. Waters percolating down through the volcanic cinders receive additional natural treatment and subsequently emerge in springs to flow into the Truckee River. The Cinder Cone is being used as an interim disposal site pending construction of a major regional sewerage system by the Tahoe-Truckee Sanitation Agency (TTSA). EPA has published a draft and final environmental impact statement on the proposed TTSA project; EPA anticipates that state and Federal construction grants may be awarded by June 30, 1975.

Similar progress is now being made in Nevada in completing sewerage systems. Noting that certain areas of Douglas County, Nevada were not adhering to the export schedules, EPA brought suit against Douglas County to enforce a water quality standards plan of implementation which requires sewering and export of wastewaters from the Lake Tahoe Basin. On May 16, 1973, in the United States v. Douglas County el al., the U.S. District Court in Reno enjoined any issuance of building permits by Douglas County after December 1, 1973, in Tahoe-Douglas District and in Kingsbury General Improvement District, until sewerage facilities are completed and in operation. Construction is well underway with anticipated work to be completed in 1975.

SEWERAGE DISTRICTS IN TAHOE BASIN

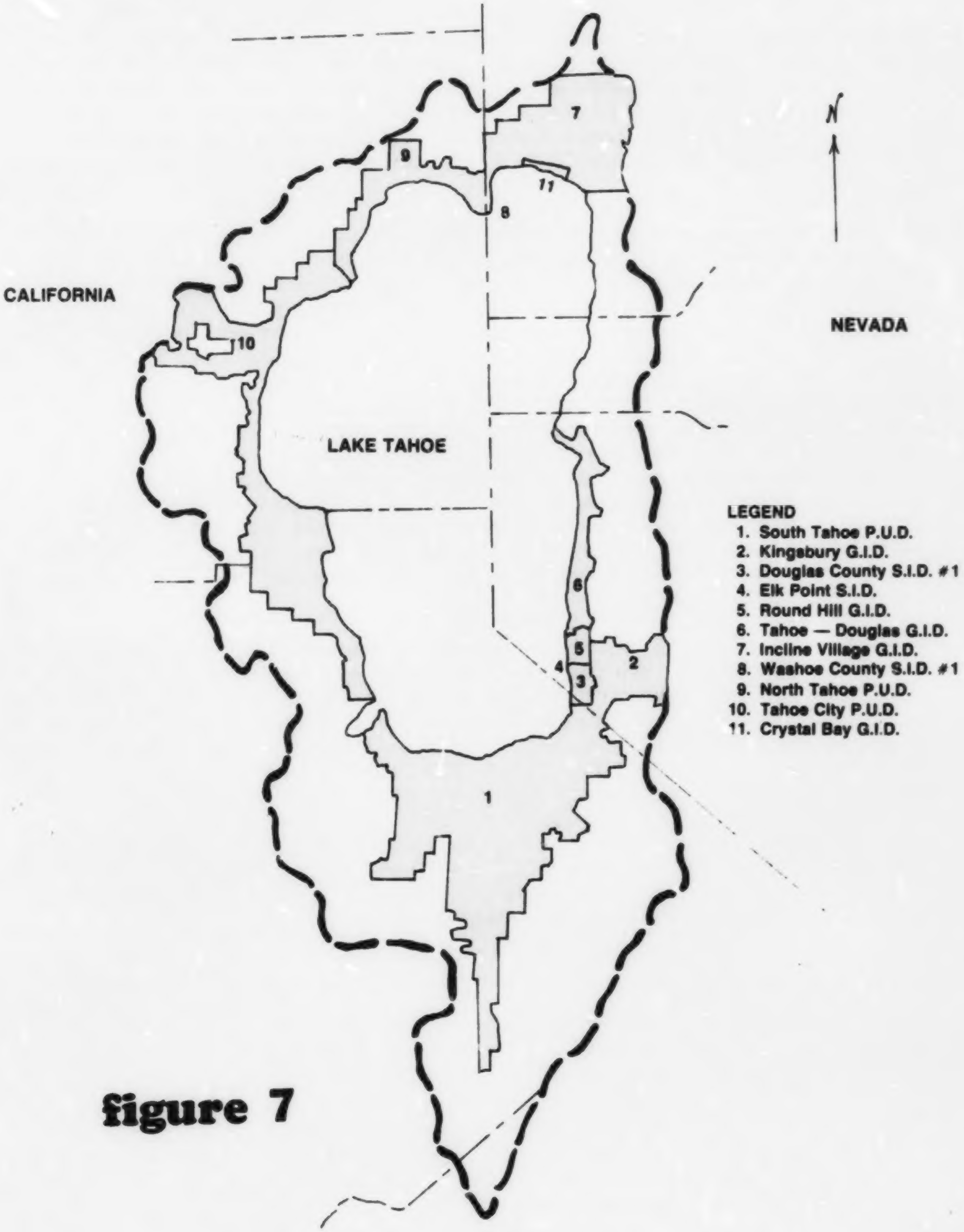

N
CALIFORNIA
NEVADA
LAKE TAHOE
1
2
3
4
5
6
7
8
9
10
11
LEGEND
1. South Tahoe P.U.D.
2. Kingsbury G.I.D.
3. Douglas County S.I.D. #1
4. Elk Point S.I.D.
5. Round Hill G.I.D.
6. Tahoe — Douglas G.I.D.
7. Incline Village G.I.D.
8. Washoe County S.I.D. #1
9. North Tahoe P.U.D.
10. Tahoe City P.U.D.
11. Crystal Bay G.I.D.

figure 7

Solid waste generated within the Tahoe Region is collected and exported to sanitary landfill sites outside the basin. The general purpose governments have issued franchises to various private refuse companies to perform the collection and export service.

Essentially no physical facilities exist for the conveyance of surface drainage waters and urban storm runoff. Surface runoff constitutes a major source of pollution to Lake Tahoe by transporting silt and sediment from disturbed lands, and various contaminants from streets and parking areas. In certain highly urbanized portions of the basin, drainage systems and storm sewers are urgently needed.

Highways and local streets, while adequate for normal use, experience severe overloading and congestion during periods of peak visitor use. The congestion is especially acute in the Stateline area where major resort casino-hotels attract large numbers of visitors. Access to this major destination area is complicated by the "strip" nature of development and severe physical limitations for road access. The traffic congestion creates a significant health and safety hazard in that emergency vehicles may be prevented from reaching the area. Moreover, the large volume of slow-moving congested traffic increases the emissions of air pollutants which may seriously degrade air quality.

EXTERNALITIES

The Tahoe Region does not exist in isolation. Significant interactions occur between the Tahoe Region and surrounding areas. Among the interactions, land uses in areas adjacent to the Tahoe Region, allocation of the water resources, and disposal of waste residuals emerge as key issues.

The Tahoe Regional Planning Compact narrowly defines the Tahoe Region to include the hydrologic watershed of Lake Tahoe. While the Tahoe Regional Plan now controls land use within that watershed, land uses outside remain under jurisdiction of the respective counties. The TRPA's more restrictive zoning and development controls have made permitted construction more expensive. Seeking to avoid the higher costs and controls, land developers are moving outside the basin creating pressures to urbanize areas such as the Martis

SEWAGE TREATMENT PLANTS AND EXPORT LINES

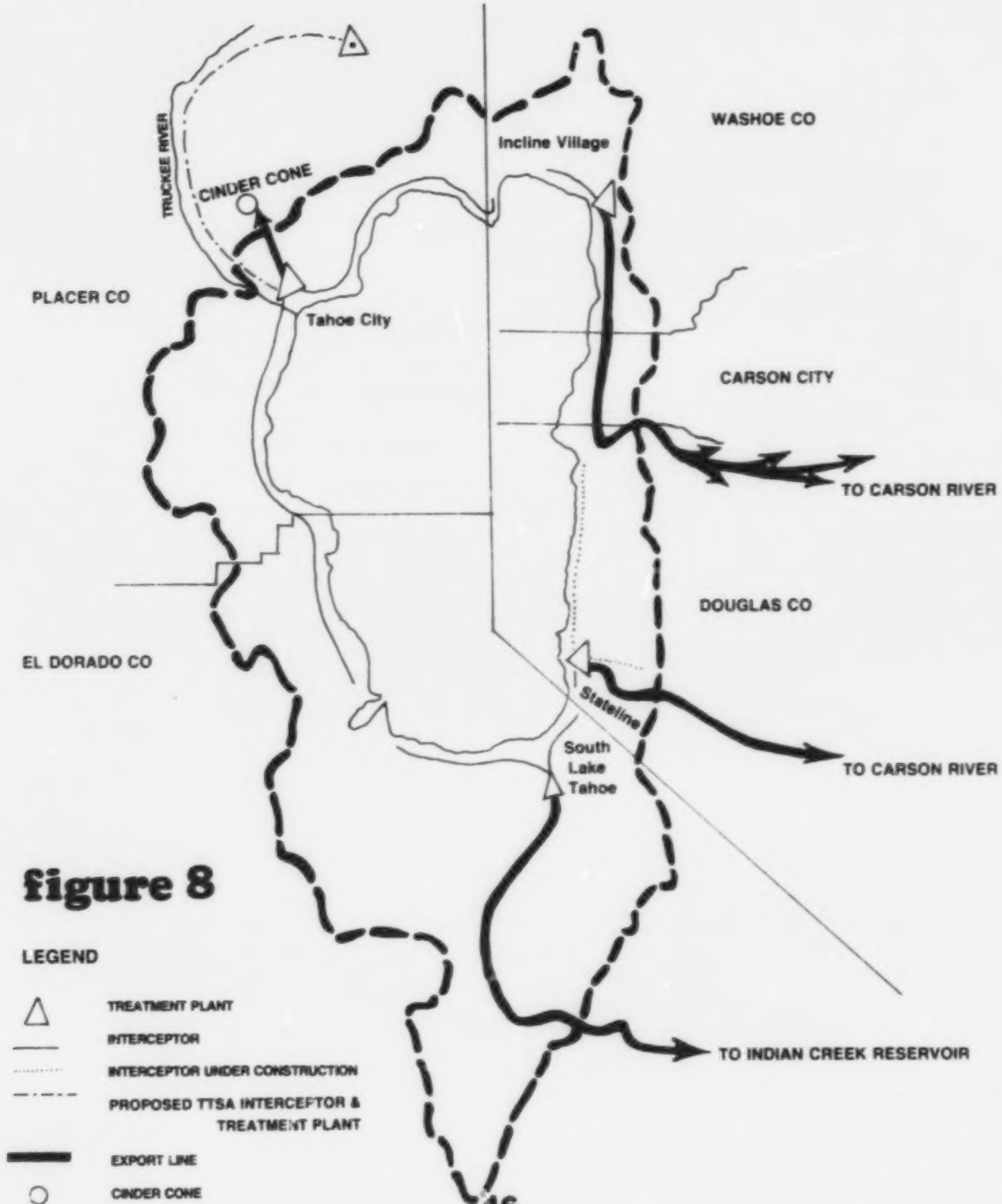

WASHOE CO
Incline Village
TRUCKEE RIVER
CINDER CONE
PLACER CO
Tahoe City
CARSON CITY
TO CARSON RIVER
DOUGLAS CO
EL DORADO CO
Stateline
South Lake Tahoe
TO CARSON RIVER
TO INDIAN CREEK RESERVOIR
LEGEND
TREATMENT PLANT
INTERCEPTOR
INTERCEPTOR UNDER CONSTRUCTION
PROPOSED TTSA INTERCEPTOR & TREATMENT PLANT
EXPORT LINE
CINDER CONE

figure 8

Valley and Carson Valley (Figure 3). It is feared that urbanization in these areas will increase the load on Tahoe's transportation system and recreational resources, and lead to further stress on the Tahoe environment.

The lack of housing to accommodate the seasonal hotel-casino employees within the Tahoe Basin has also created pressures to urbanize areas outside the Basin. For example, the Carson Valley area is increasingly becoming the residential base for people who work in the Stateline area. This type of commute further contributes to traffic congestion and environmental stress within the Basin.

The issue of allocation of water resources involves a complex legal history of water rights. Despite the enormous volume of Lake Tahoe, the area is generally considered to be "water-deficient" with respect to competing uses of water. The competing uses include municipal use in the Tahoe and Truckee watersheds; agricultural irrigation use in the Truckee and Carson watersheds; use to maintain stream flow in the Truckee River (Floriston rates); and use to stabilize the level of Pyramid Lake at the terminus of the Truckee River (Figure 3).

In 1955, legislative action established the California-Nevada Interstate Compact Commission to negotiate and enter into a compact providing for equitable distribution and use of the waters of the Truckee, Carson, and Walker rivers and Lake Tahoe in both states. This Compact has allocated 34,000 acre-feet of water annually for use in the Lake Tahoe Region - 23,000 acre-feet to California and the remaining 11,000 to Nevada. In addition, the Compact has recognized and preserved the existing judicial decisions and decrees which govern water use in the Truckee and Carson River Basins. This Compact has been agreed to by both states, and has been introduced to Congress for ratification (92nd Congress, 2d Session, HR 15 and S. 3703). Congress has not acted on the ratification however.

The proposed Compact and the existing uses of water must be reconciled with the issue of the aboriginal rights asserted by the Pyramid Lake Paiute Indians to the Truckee River water. In October 1972, Federal Judge Gessell ordered the Department of Interior to reduce diversions from the Truckee River so that more water would remain in the River for the benefit of Pyramid Lake. Interior has reported that increased flow to Pyramid could not be reconciled with existing allocations fixed by court decrees.

The United States filed an original suit in the Supreme Court against the States of California and Nevada to determine the water rights of the United States and to apportion the remaining waters between the States of California and Nevada. However, on June 11, 1973, the Supreme Court elected not to hear the case. A suit was filed on December 21, 1973, in the United States District Court in Reno, Nevada, seeking essentially the same remedies. Also, the *Alpine* case for the adjudication of water rights of the Carson River in Nevada and California has been reactivated and, hopefully, following completion of certain procedural requirements, will move to final judgment and decree. The results of such pending litigation may affect the quantity of water available for use within the Lake Tahoe Basin and the Truckee Basin.

The disposal of waste residuals consists of export of solid waste and treated wastewater to areas outside the Tahoe Basin. Provisions are made to minimize the environmental impact on the receiving area. However, due to sensitivity of the issue of water quantity and water quality, continuing conflicts are expected.

THE TAHOE BASIN ECOSYSTEM

To "consider the effect of various actions in terms of their environmental impact on the Tahoe Basin, treated as an ecosystem" requires an overview of the general ecological relationships and processes present in the Tahoe Basin.

Considerable knowledge has been gained from previous and current research on the various facets of the ecology of the Tahoe Basin. In fact, the land capability approach to the Tahoe Regional Plan embodies most of this knowledge. Previous sections of this Study have described the "macro" physical factors of altitude, geology, climate, topography, and hydrology which has shaped the contemporary environment of the basin. This section discusses, in general, the "micro" ecologic relationships in the context of a Tahoe ecosystem without human intervention, and impacts to that ecosystem which may result from man's habitation of the region.

The crystal clear quality of the waters of Lake Tahoe represents the most important ecological parameter. Lake Tahoe is classified as "oligotrophic" indicating its low biological productivity. The Lake naturally receives a very low supply of nutrients. Moreover, the nutrient input is thoroughly mixed through the great depth and volume of the Lake such that the nutrient concentrations are very small. Consequently, only very small populations of phytoplankton (algae) could be sustained. The exceptional clarity of the waters results from the relative absence of algal growth and further represents a condition of stability in cycling nutrients through the ecosystem. That such ecological stability is "fragile" is indicated by the sensitivity of the waters to the biostimulants nitrogen and iron. Accelerated algal growth can be induced by incremental additions of these elements to the waters of Lake Tahoe.

The soils of the region are derived from granitic rocks which are coarse textured, low in water holding capacity, low in plant nutrients, and have high erosion potential; and from volcanic rocks which are finer textured, moderate in water holding capacity, fertility, and erosion potential. The soils formed in alluvium along margins of the Lake and adjacent to stream channels are usually deep and high in nutrients, but lack binding materials. The Tahoe Basin soils, developed over centuries by weathering and natural vegetative cycles, are widely acknowledged to be very unstable.

The vegetation and plant community composition are intimately interrelated to the soils, soil moisture, and the climatic patterns. The region was endowed with vegetative cover ranging from herbaceous plants, mountain meadows, riparian growth, montane chapparal, to extensive coniferous forests. The short growing season indicates that the native vegetative cover is developed over a relatively long period of time.

The mutual relationship of vegetation with water and soils is most important. Precipitation is intercepted in the crowns of trees and in the ground litter. Evapotranspiration from the leaves of vegetation depletes soil moisture and creates a soil storage potential; runoff water from rain or melting snow thus infiltrates down into the soil where it becomes available for root uptake and groundwater storage. Vegetative roots and ground cover further act to bind the soil matrix together.

The watershed drainage basins act to convey surface (and usually subsurface) runoff from rain and snowmelt. The rate and amount of runoff is highly variable depending on the physical characteristics of the drainage area.

The natural runoff process slowly erodes the land and transports the erosion products - sediment, dissolved minerals, organic litter, nutrients - through the drainage course to eventually reach Lake Tahoe where they are mixed, stored, and/or utilized. Sediments are filtered and nutrients utilized in the delta marshes of tributary streams; particles are mixed, deposited, and/or formed into beaches by shorezone processes; organic materials are decomposed in oxygen-rich waters; and the nutrients are utilized by the aquatic biota.

The exceptional clarity of Lake Tahoe could be maintained indefinitely so long as the ecological cycles remained stable. In terms of geologic time, Lake Tahoe can be expected to slowly fill with sediment and slowly experience natural eutrophication. By upsetting the natural cycles of the Tahoe ecology, that geologic time-span can be considerably shortened to the human time perspective.

Any assessment of the environmental impact of current activities of man must appreciate that the Tahoe landscape had already been extensively altered. For example, beginning in the 1860's, massive logging operations were carried out to supply timber to the Constock mines in Virginia City, Nevada. Unfortunately, the ecological impact of that logging operation on the water quality of Lake Tahoe was not recorded; such knowledge would be most valuable in reviewing the environmental impact of current activities.

Current activities of man leading to the urbanization of the Lake Tahoe Region inevitably result in conflicts with the natural dynamics of the ecosystem. Such activities may also result in conflicts with the human values of visual beauty and the human health associated with quality air. To the extent that such conflicts result in degradation to the crystal clarity of the waters or the alpine quality of the air in the Tahoe Region, public policy must be directed to minimize such degradation. However, public policy must be based upon an understanding of the ecological processes at work.

The following ecological impact analysis process attempts to translate land development into an expression of the differing kinds of physical and biologic impacts on the land and water. Such development includes residential, commercial, recreational land uses, and the transportation and public utilities associated with such uses. The process utilizes two matrices: Maxtrix I translates typical aspects of physical development into generic first impact categories, Matrix II suggests the types of potential impacts that can result from the generic first impacts. This two-step process illustrates the "chain reaction" effects of land development on the natural ecosystem of Lake Tahoe. The possible resultant impacts on Matrix II are ordered to reflect the cumulative impact from the initial soil disturbance to the final receiving water.

The general ecologic relation of soil disturbance, impervious surface coverage, increased surface runoff, increased erosion, stream transport of sediment and attached nutrients to Lake Tahoe, increased turbidity and accelerated algal growth in Lake Tahoe is most important. The end product of this ecological impact process is indicated by the clarity of the waters of Lake Tahoe.

In addition to ecological impacts which may result from land development per se, various environmental impacts may result from man's habitation of the region. For example, emissions from automobile traffic, space heating, and campfires may adversely affect air quality. Shoreline construction may interfere with littoral currents creating a water environment

MATRIX I

GENERIC FIRST IMPACTS DEVELOPMENT ASPECTS	Partial Tree Canopy, Understory, Grass Removal	Complete Cover, Grass, Debris Removal	Shallow Soil Exposure	Deep Soil Exposure	Unload Slopes — Excavation	Weight Slopes — Fill	Surface Comaction	Impervious Surface	Subsurface Water Reduction Or Interruption	Subsurface Water Concentration	Surface Water Sheet Flow Reduction or Interruption	Surface Water Sheet Flow Concentration	Unseasonal Surface Water Addition & Concentration	Creation of Air Borne Particulates
Clearing Trees & Undergrowth	X		X				X				X	X		
Off-road Pre-construction Equipment Movement		X	X				X				X	X		X
Site Stripping		X	X				X				X	X		X
Deep Trenching, compacted Backfill for Utilities				X	X		X		X	X	X	X		X
Excavate for Roads, Buildings, Garden			X	X	X		X		X	X	X	X		X
Compacted Fill for Roads, Buildings, Patio						X	X	X			X	X		X
Uncontrolled, Uncompacted Downhill & Piled Fill						X	X			X	X	X		X
Grading For Drainage Swales & Structures			X	X	X				X	X	X	X		X
Underground Drain Lines				X					X					
Deep Footings, Retaining Wall							X		X	X				
Stockpiled Building Materials		X				X	X				X	X		X
Curbs, Cutters, Diversion Ditch								X	X		X			
Buildings, Paved Roads, Drives, Parking Lots						X	X	X						
Slope Erosion Control Planting			X								X	X	X	
Lawn, Garden & Golf Course Prep. and Planting			X	X	X	X					X	X	X	
Lawn, Garden, & Golf Course Fertilization & Irrigation										X		X	X	
Pedestrian, Equestrian Trails, Camping Pads	X		X				X		X			X		X

MATRIX II

GENERIC FIRST IMPACTS / POSSIBLE RESULTANT IMPACTS	Partial Tree Canopy, Understory, Grass Removal	Complete Cover, Grass, Debris Removal	Shallow Soil Exposure	Deep Soil Exposure	Unload Slopes — Excavation	Weight Slopes — Fill	Surface Comaction	Impervious Surface	Subsurface Water Reduction Or Interruption	Subsurface Water Concentration	Surface Water Sheet Flow Reduction Or Interruption	Surface Water Sheet Flow Concentration	Unseasonal Surface Water Addition & Concentration	Creation Of Air Borne Particulates
Swelling & Loosening Soil and Weathered Rock	X	X	X	X	X					X		X	X	
Soil Particles Dislodged by Water Drop Splash	X	X	X	X	X								X	
Surface, Subsurface Soil Pore Collapse and Sealing	X	X	X	X	X	X	X	X	X	X	X	X		
Soil Flow, Slide, Slump or Creep	X	X	X	X	X	X			X	X	X	X	X	
Soil Moisture Zone Increase	X	X	X	X	X					X	X		X	
Soil Moisture Zone Decrease						X	X	X	X			X		
Change Water Table	X	X	X	X	X	X	X	X	X	X	X	X	X	
Endanger Revegetation of Plant Community	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Runoff Increase, Overland Flow	X	X	X	X	X	X	X	X				X	X	
Soil Slope Wash, Rilling, Gullying	X	X	X	X	X	X	X	X				X	X	
Loss of Soil Nutrients	X	X	X	X	X					X		X	X	X
Increase Stream Flow Intensity and Flood Frequency	X	X	X	X	X	X	X	X				X	X	
Increase Stream Cutting	X	X	X	X	X	X	X	X				X	X	
Increase Stream and Lake Turbidity	X	X	X	X	X	X	X	X				X	X	X
Deposition of Eroded Material (Sedimentation)	X	X	X	X	X	X	X	X				X		X
Accelerate Lake Eutrophication	X	X	X	X	X	X	X	X				X		X
Air Pollution, Visibility	X	X												X

in which aquatic biota may flourish. Storm runoff carrying deicing salts, oils, litter, etc., from streets and parking lots may impact water quality in the streams and in the Lake. Export of wastewater and solid waste from the Tahoe Basin effectively avoids the direct impact of sewage discharge in the basin on the quality of the waters; however, it must be noted that the construction of the sewer line itself creates an impact through the process of vegetation clearing, trench excavation, and soil disturbance. Moreover, to the extent that sewer lines leak (exfiltrate), sewers may indirectly add to the nutrient load entering the Tahoe ecosystem.

Man's activities in the Tahoe Region are significantly impacting the ecological stability of the area - a stability which represents ages of natural ecologic processes at work. Already there is evidence of seasonal growths of periphyton (algae attached to bottom rocks) in the near-shore shallow waters; and evidence of subtle color changes and decreased clarity. To extent that Lake Tahoe continues to receive sediment and nutrients derived from careless land development, the change in Lake Tahoe's clarity may be irreversible.

INTERGOVERNMENTAL ACTIVITIES

COMPACT PROVISIONS/FEDERAL COORDINATION

The Tahoe Regional Planning Compact provides a strong basis for coordination of governmental activities within the Tahoe Region. The TRPA has the legislated goals:

- "To enhance the efficiency and governmental effectiveness of the region.
- To harmonize the needs of the region as a whole, the plans of the counties and cities within the region, the plans and planning activities of the state, Federal, and other public agencies and non-governmental agencies and organizations which affect or are concerned with planning and development within the region."

The Compact further provides the mechanism for the cooperation of the Federal Government with the Tahoe Regional Planning Agency:

- "The Secretary of the Interior and the Secretary of Agriculture are authorized, upon request of the Tahoe Regional Planning Agency, to cooperate with said agency in all respects compatible with carrying out the normal duties of their Departments.
- The consent to the Compact by the United States is subject to the condition that the President may appoint a nonvoting representative of the United States to the Tahoe Regional Planning Agency's governing board."

In April 1970, President Nixon appointed the nonvoting Federal representative to the TRPA. The Presidential Appointee immediately formed a committee of Federal agencies, designated as the Federal Coordinators Committee, to provide inter-agency coordination with respect to development and implementation of the Tahoe Regional Plan. The Committee, operating informally under the general direction of the Presidential Appointee, has coordinated data inputs and assistance in preparation of the Tahoe Regional Plan, provided review and comment on TRPA planning activities, and provided Federal views on specific development proposals. In 1973, a Tahoe Executive Council was formed to provide policy guidance to the Federal agencies. The Council was a standing committee of the Natural Resources Regional Council. Membership included Department of Agriculture, Department of Interior, Department of Defense, Department of Transportation, Department of Housing and Urban Development, and the Environmental Protection Agency.

ANALYSIS OF AGENCY ACTIONS

To "examine the interrelationships and responsibilities of the various agencies of the Federal Government and state and local governments", and to perform such examination "in consultation with" such agencies; Task Reports were completed by each Federal and state agency which provided the basic information for this section. The Task Reports provide for each agency to discuss and self-analyze their agency's historical activities, current programs, coordination mechanisms, environmental impact, and future activities.

From the data presented in the Task Reports, agency actions and responsibilities are sorted into categories. Table 6 lists the current and immediate past activities of each Federal and State agency carried out in the Tahoe Region.

CRITERIA FOR CLASSIFYING AGENCY ACTIVITIES

1. Administrative & Advisory Responsibilities
    - a) Administration of grants for planning
    - b) Guidelines publication
    - c) Technical assistance, planning assistance

2. Functional Responsibilities
    - a) Major planning and feasibility studies
    - b) Design and construction and maintenance
    - c) Land or resources management
    - d) Administration of grants for construction & land acquisition

3. Implementation and Enforcement Responsibilities
    - a) Standards setting
    - b) Monitoring & surveillance
    - c) Enforcement orders, actions
    - d) Review and issuance of permits

4. Research Responsibilities
    - a) Data collection
    - b) Mapping
    - c) Research, demonstration projects or grants
    - d) Historical records

FEDERAL-STATE RESPONSIBILITY IN THE LAKE TAHOE BASIN

AGENCY	A ADMINISTRATIVE & ADVISORY RESPONSIBILITIES	KEY	B FUNCTIONAL RESPONSIBILITIES	KEY	C IMPLEMENTATION & ENFORCEMENT RESPONSIBILITIES	KEY	D RESEARCH RESPONSIBILITIES	KEY
FEDERAL								
EPA	Guidelines publication, air and water pollution control, technology transfer Technical planning assistance to state air boards and local air pollution districts, air implementation plans Technical planning assistance for water quality management planning (303-e); project planning and design (201); areawide planning (208)	1-b 1-c 1-c	Administers Federal grant program to assist (75% share) in construction of municipal wastewater systems	2-d	Approval of State-Federal Water Quality Standards for Interstate Waters of Lake Tahoe Enforcement actions to assure compliance with waste discharge permits NPDES waste discharge permits for discharge to Nevada waters	3-a 3-c 3-d	Research and Demonstration Grants a) "Surface Runoff to Lake Tahoe" b) "Relationship between sewerage construction and land use patterns" c) "Primary Productivity in Lake Tahoe"	4-c
USFS	Membership on Research Coordination Board Tahoe Basin - Guides to Planning Technical assistance to landowner in forest management	1-a 1-b 1-c	Land use planning, multiple-use objectives: "General Plan of Management for National Forest Lands in the Lake Tahoe Basin" Recreation Development: Campsites, trails, roads, visitor information Administer Special Use Permits: resorts, summer homes, water and sewer lines, utility corridors Wilderness land management, Desolation Valley Land acquisition program to consolidate inholdings and acquire shoreline within proclaimed national Forest Boundaries	2-a 2-b 2-b 2-c 2-c	Enforcement of fire laws, Wilderness Area Permit system, off-road vehicle use, campground regulations, burning permits, etc. Special use permits on National Forest Land	3-c 3-d	Research on land capability, land suitability, recreation use, transportation, wilderness management, salt damage to vegetation	4-c
HUD	"701" planning grants to TRPA	1-a	Open Space grants for land acquisition Administers FHA mortgage insurance program	2-d 2-d				
CE	Flood Plain Management Services and flood hazard information	1-c	Flood Control Projects	2-a, b	Regulatory permit for all activities in or over the navigable waters of Lake Tahoe	3-d		
SCS	Technical assistance to landowners through local Resource Conservation Districts regarding erosion control and revegetation	1-c					Snow surveys	4-a
NPS							National Register of Historic Places National Register of Historic Landmarks National Register of Natural Landmarks	4-d 4-d 4-d
BOR			Lakeshore Study PL 91-625 Administer Land and Water Conservation Fund grants to state and local agencies and to Federal agencies	2-a 2-d				

FEDERAL-STATE RESPONSIBILITY IN THE LAKE TAHOE BASIN

AGENCY	A ADMINISTRATIVE & ADVISORY RESPONSIBILITIES	KEY	B FUNCTIONAL RESPONSIBILITIES	KEY	C IMPLEMENTATION & ENFORCEMENT RESPONSIBILITIES	KEY	D RESEARCH RESPONSIBILITIES	KEY
USBR			Operation of Tahoe-Truckee-Carson-Pyramid Lake water resource system including management of Lake Tahoe as a reservoir	2-c			Weather modification	4-c
HEW	Title I Higher Education Act, Grant to Lake Tahoe Environmental Education Consortium to conduct a community environmental awareness & development program	1-a						
USGS							Streamflow, sediment, & nutrient transport studies in Incline Village area Evaluation of highway erosion with CA & NV Highway Departments Data records of streamflow, groundwater, water quality Geologic mapping	4-a,c 4-a,c 4-a 4-b
DOT			Federal Highway Project: Kingsbury Grade Forest Highway between Carson Valley and Stateline	2-b				
NSF							Research Coordination Project, grant to Lake Tahoe Area Council Tahoe Research Group U.C. Davis, multi-disciplinary research project	4-c 4-c
BLM			Participation in land exchanges with USFS	2-d				
SCS/USFS							"Tahoe Soil Survey" Research on revegetation methods	4-a,b 4-c
DOT/FHWA	Intermodal Planning Group planning assistance to prepare TRPA's unified transportation work program	1-c						
STATE CALIFORNIA SWRCB			Water quality management planning North Lahontan Basin Water rights administration Administers State Clean Water Bond program to assist (12-1/2% share) in construction of municipal wastewater systems	2-a 2-c 2-d				
SWRCB/ LAHONTAN					Siltation program, surveillance and clean up enforcement orders Enforcement of violations of Water Pollution Control Policy and waste discharge permit requirements Administer Federal NPDES waste discharge permit system, including discharge requirements on new subdivision developments	3-b,c 3-c 3-d		

FEDERAL-STATE RESPONSIBILITY IN THE LAKE TAHOE BASIN

AGENCY	A ADMINISTRATIVE & ADVISORY RESPONSIBILITIES	KEY	B FUNCTIONAL RESPONSIBILITIES	KEY	C IMPLEMENTATION & ENFORCEMENT RESPONSIBILITIES	KEY	D RESEARCH RESPONSIBILITIES	KEY
PARKS & REC	Parks planning grants to local governments	1-a	Operates three State Parks and one Recreation area	2-c				
STATE LANDS	Assist TRPA in administering Shoreline Ordinance	1-c	Administers and controls all submerged lands in Lake Tahoe waterward of low water mark: including leasing of such lands for private purposes	2-c				
CONSERVATION			Fire protection, watershed protection, insect control, administer State Forest Practices Act: all on private forest lands	2-c				
FISH & GAME					Pollution abatement orders, materials in water deleterious to fish and wildlife Review & comment to local gov't, effect of subdivision on streams and fishery resource	3-c 3-d		
BUR. SAN ENG					Domestic water supply regulation, monitoring, and use permits Monitoring for sewage contamination in lakes & streams	3-a,b,d 3-b		
DOT			Studies of highway-caused pollutants, research on drainage, revegetation; air emissions monitoring	2-a				
ARB					Air quality monitoring	3-b		
DWR	Administrative services to CA/NV Compact Commission	1-c						
AERO					Use permit for South Lake Tahoe Airport and Truckee Airport	3-d		
PLACER APCD					Air pollution regulations	3-a,b,c,d		
EL DORADO APCD					Air pollution regulations	3-a,b,c,d		
NEVADA								
DEH					Air pollution regulations Enforcement actions to assure compliance with waste discharge permits	3-a,b,c,d 3-c		
STATE ENGINEER			Administer water filings and water rights - surface waters and groundwaters	2-c				
PARKS	Operates Lake Tahoe Nevada State Park	2-c						
FISH & GAME							Fisheries research	4-a,c
WASHOE APCD					Air pollution regulations	3-a,b,c,d		

FEDERAL-STATE RESPONSIBILITY IN THE LAKE TAHOE BASIN

AGENCY	A ADMINISTRATIVE & ADVISORY RESPONSIBILITIES	KEY	B FUNCTIONAL RESPONSIBILITIES	KEY	C IMPLEMENTATION & ENFORCEMENT RESPONSIBILITIES	KEY	D RESEARCH RESPONSIBILITIES	KEY
STATE/FED								
EPA CA-DWR, SWRCB NV-BEH					Joint water quality investigation	3-b		
EPA BOR BSFW CA-F&G NV-F&G					Review & comment CE shoreline permits	3-d		
USFS CA-FOR NV-FORESTRY			Forest Protection: fire prevention and control, insect and disease	2-b				
BSFW CA-F&G NV-F&G			Fisheries management, regulation, and fish planting	2-c				
USDOT NV-HIGHWAYS			State Federally Aided Highway: relocate U.S. 50 Stateline to S.R. 19	2-a,d				
USDOT CA-DOT			State Federally Aided Highway: intersection & signals U.S. 50 and Pioneer Trail	2-a,d				
JOINT STATE RESPONSIBILITY								
SWRCB/LAHONT NV-BEH	Technical assistance to sewerage districts & landowners regarding water pollution control	1-b						
CA-DOT NV-HIGHWAYS			Assist TRPA Basin-wide Transportation Study Highway Maintenance, Drainage and erosion control programs	2-a 2-b				
CA-FORESTRY NV-FORESTRY	Assist and consult with TRPA in Timber Harvesting & Tree Cutting Ordinance	1-c						

Several Federal and state agency actions have been taken under the coordinated sponsorship of the Federal representative. These actions were taken to lend Federal and state support to TRPA during the critical period of plan and ordinance development. These actions include:

1. The U.S. Army Corps of Engineers instituted a moratorium on issuance of permits for structures in Lake Tahoe until TRPA completed a shorezone plan and ordinance. California State Lands Commission also suspended permits issuance during this time. All of the Federal and state agencies that normally review and comment on such permits formally supported the moratorium.

2. The Department of Housing and Urban Development imposed a moratorium on FHA mortgage loan insurance programs in the Basin until the General Plan was adopted. The mortgage loan program is now coordinated with the General Plan, and with the availability of sewage export facilities, such that FHA insurance is not available in areas designated General Forest or in areas lacking sewage export facilities.

3. The Forest Service deferred all actions on National Forest lands until the "General Plan of Management for National Forest Lands" was completed and adopted.

Another significant step toward intergovernmental coordination was recently sponsored by the National Science Foundation (NSF). NSF has funded a project at Lake Tahoe to provide effective coordination of environmental research and its application to regional problems by all levels of government. This project operates under the management of the Lake Tahoe Area Research Coordination Board and is jointly administered by TRPA and the Lake Tahoe Area Council. The Federal representative to TRPA chairs the Research Board.

The primary objectives for the coordination of research within the Tahoe Basin are:

1. Stimulate and encourage research applicable to supporting the objectives of the TRPA and other Federal, state, and private agencies.

2. Develop a research needs program and establish research priorities.

3. Coordinate participation by all elements of the research community (government, academic, private and industrial).

INTERGOVERNMENTAL PROBLEMS

Given the very wide range and diversity of Federal and state agency actions in the Tahoe Region as shown by Table 6 it could well be expected that intergovernmental problems exist. Governmental activities, services, funds, and regulations at the Federal and state level interact with the TRPA, general purpose local governments, special purpose districts, and with the private sector with varying effectiveness.

Intergovernmental problems have been noted in the following general areas: Federal policy, sewerage, air quality, erosion and sedimentation control, water supply, transportation, and regulation of private development.

FEDERAL POLICY

On December 18, 1969, consent of Congress was given to the Tahoe Regional Planning Compact. While confirming the "Findings and Declarations of Policy" as adopted by the States of California and Nevada, Congress did not articulate a specific Federal policy with respect to the Lake Tahoe Basin.

The Federal agency administrative structure is not monolithic, speaking with one voice, acting with central authority. Rather, it is a set of discrete agencies each pursuing separate objectives dictated by separate legislation. The lack of an explicit Federal policy towards Lake Tahoe has resulted in ad hoc policy being carried out by each separate agency. Such ad hoc policies are usually founded upon national objectives and therefore may lack the necessary specificity towards Lake Tahoe.

The national interest in the Lake Tahoe Basin is considerable. The lack of an explicit Federal policy towards Lake Tahoe has compounded the task of protecting the national interest and conserving the public environmental values. It has frustrated the task of resolving the use of land in the best interest of both public and private sectors. And, it has made truly effective Federal agency coordination an unreachable ideal.

The lack of Federal vote vested in the Federal representative to the TRPA has been noted. However, in the absence of a Federal policy towards Lake Tahoe, any Federal representative would not have a firm basis for expressing the national interest by means of a vote.

SEWERAGE

The discussion of intergovernmental problems with respect to sewers is largely in the historical context since most of the major sewerage systems are now in place. However, it may be instructive for future Federal policy to briefly review this example.

The intergovernmental coordination in implementing the sewage export mandates has been exemplary. Local governments and sanitary districts have planned and constructed major engineering works (and incurred substantial bonded-indebtedness, see Chapter VI, Economic Factors). The Nevada BEH and California SWRCB have placed Tahoe sewer projects high on the priority lists; moreover, the SWRCB has made loans and grants to assist in construction of facilities. The EDA has granted economic development funds to assist in construction. The EPA has applied construction grant funds to further assist in construction, and has entered enforcement proceedings in order to expedite the construction of sewers and export of wastewater. The USFS has provided funds to sewer campgrounds and public facilities; and has made available National Forest lands (Cinder Cone) for the interim disposal of wastewater exported from the north shore. HUD has placed a moratorium on FHA loan insurance until such time as sewerage facilities are available.

The problems are shown on a broader scale than sewer *per se*, and relate to the concepts of urban infrastructure and comprehensive land use planning. The thrust of local land use planning over the past decade at Lake Tahoe has tended to focus on the spatial distribution of uses as contrasted to the intensity of uses. Construction of sewerage infrastructure was in response to environmental quality problems viewed only in the spatial context. However, the subsequent high increases in use density made possible by the availability of sewer capacity may lead to further environmental problems. The impact of low density residential use is tightly controlled by the TRPA land use ordinance, while the environmental impacts of high density and commercial development are presently not tightly regulated. For example, traffic congestion and air pollution remain to be fully addressed by TRPA.

In the past, EPA has funded development and expansion of sewer interceptors, treatment plants, and export lines without a careful analysis of the basis for the population projections used to determine sewerage capacity. With respect to current land use zoning and densities set forth in the Tahoe Regional Plan, several of the existing sewerage systems are oversized. EPA is now paying careful attention to the question of population and sewer sizing in planning new projects. For example, in determining the capacities eligible for Federal grant assistance in the proposed TTSA facility, EPA rigorously analyzed the demographic population forecasts in an environmental impact statement.

AIR QUALITY

Given that the topography and meteorology of the Tahoe Basin are such as to cause frequent inversions trapping air pollutants within the Basin, and that degradation of the quality of the air may be expected as a result of increasing urbanization, automobile traffic, and visitor use; it is essential that air pollution control become a major governmental function in the Tahoe Region. The opportunity now exists to move to prevent serious air pollution. However, the traditional fragmented jurisdictions and responsibilities could preclude an effective air program.

The Tahoe Region is split by the stateline into the Sacramento Valley Intrastate Air Quality Control Region and the Northwest Nevada Intrastate AQCR. Separate air pollution control regulations designed to insure compliance with the Clean Air Act have been adopted by the California ARB and the Nevada BEH; such regulations appear in the state air implementations plans as approved by EPA. The regulations are administered and enforced through local air pollution control districts - El Dorado County APCD, Placer County APCD, and Washoe County APCD. In Carson City and Douglas County the regulations are administered and enforced by the Nevada BEH.

The Tahoe Regional Planning Compact allows TRPA to engage in interstate activity for the control of air pollution. TRPA has formally resolved that air pollution planning and control is a necessary adjunct to its land use and transportation planning, and that Federal funds should be sought from EPA under Section 106 of the Clean Air Act to carry out such a program. However, Federal planning funds under Section 106 may only be applied to an interstate AQCR, and the Tahoe Basin is presently split into two intrastate regions.

In addition, EPA is currently proposing regulations to prevent the significant deterioration of existing high quality air. The specific application of these regulations to the Tahoe Region is highly uncertain at this time. However, it is expected that the issue of significant deterioration of the Tahoe air quality will be very important with respect to future development in the Tahoe Region.

There is now a present and future need to clarify and simplify the intergovernmental structure to efficiently and effectively deal with the air quality issue in the Tahoe Region.

EROSION AND SEDIMENTATION CONTROL

In Chapter V, the "Tahoe Ecosystem", a detailed account of land development activities and associated ecological impact was presented. To a large extent, the "fragile ecology of Lake Tahoe" is shown by the linkage between land disturbance and water quality degradation.

The control of non-point runoff of sediment[1] to Lake Tahoe is a most difficult legal and intergovernmental problem. Any attack on the problem must recognize that the causes of such pollution are not easily identifiable waste discharges from definable sources. Moreover, the legal tools currently available to many of the agencies to deal with the problem are ambiguous and limited. The problem is not amenable to simply better interagency coordination; sharper legal tools are needed as well.

Various Federal and state agencies, TRPA, and local governments are involved in erosion and sedimentation control. A brief discussion of each agency's regulatory program follows:

1. The Environmental Protection Agency has approved Federal/State Water Quality Standards for Lake Tahoe. These standards are receiving water quality criteria and are not directly related to the loading of sediments and nutrients carried by the runoff into Lake Tahoe. Enforcement actions for water quality standards violations due to sedimentation were not filed in the past due to difficulties in identifying the specific source of the sediment and directly relating it to water quality degradation.

   In the Federal Water Pollution Control Act of 1972, EPA's siltation enforcement authority was significantly limited. Section 301(a) states that "the discharge of any pollutant by any person shall be unlawful" except as in compliance with Section 402. The "discharge of any pollutant" is defined in Section 502(12) as "any addition of any pollutant to navigable waters from any point source." Section 502(14) further defines a point source as "any discernable, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit----." Section 402 provides for the issuance of a NPDES permit for point source discharges.

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[1] Sediment is used an an "indicator" to simplify discussion. A wide variety of pollutants may actually be present in the surface runoff waters.

In other words, EPA may control the discharge of sediment to Lake Tahoe only if there is a point source discharge. The most effective control mechanism is the issuance of an NPDES permit to the point source. In the event of violation of the permit, discharges without a permit, or discharges in violation of the principal regulatory provisions of the FWPCA, EPA may institute enforcement action under Section 309 of the Act.

2. The Soil Conservation Service is active in assisting in erosion control methods on private lands. The SCS assistance is directed through resource conservation districts in California and Nevada. This program could lead to the development of preventive techniques, however, it has always been underfunded.

3. The California SWRCB and the Lahontan Board have an extensive program for erosion and sedimentation control in the Tahoe Basin. To implement the Federal/State Water Quality Standards of Lake Tahoe, the Lahontan Board uses authority of the Porter-Cologne Water Quality Control Act to place waste discharge requirements on all discharge of waste to the surface waters of the Lake Tahoe Basin. (California administers the Federal NPDES permit program. For point sources, the waste discharge requirements become an NPDES permit.) In the event waste discharge requirements are violated, the Lahontan Board may issue an order to cease and desist. If the cease and desist order is violated civil liabilities may be incurred up to $10,000 for each day of violation. In addition to cease and desist proceedings, the Lahontan Board may issue a cleanup and abatement order. If compliance with the cleanup and abatement order is not shown, the state Attorney General may repition the Superior Court for injunctive relief.

   The Lahontan Board's siltation program rests on the provision of the Federal/State Water Quality Standards which prohibits the discharge of solid or liquid waste materials, including soil, silt, clay, sand, and other organic and earthen materials, to Lake Tahoe or to any tributary stream; and the discharge of said materials to lands within the 100 year flood plain of any tributary stream.

   In March 1973, the Lahontan Board adopted "Guidelines for Implementation of Siltation Provisions." Pursuant to these "Guidelines", waste discharge requirements designed to control site erosion and runoff are established for land development and building construction. Recognizing that traditional discharge requirements (i.e. effluent limitations) are generally not fully effective to control erosion, specific source control measures are prescribed. (Specific source control measures are possible under the California Water Code by treating the sediment discharge as a solid waste rather than a liquid waste.)

Lahontan's "Guidelines" have generally been effective. However, for more efficient long term implementation of erosion and sediment controls, such waste discharge requirements and source controls should be internalized into the normal land development review process by local governments and by TRPA since each has specific land use authority.

4. The Nevada BEH "Regulations Governing the Lake Tahoe Watershed" specify in Regulation 12: "The discharge of sewage, sewage effluent, trash, debris, or waste of any kind, liquid or solid into the waters of Lake Tahoe.....is prohibited." Further, under the Regulation 1, a written permit is required before any work is commenced for construction of any building, water, sewerage, or drainage system. These Regulations could provide the basis for a siltation control program on the Nevada side, however, they have not been implemented to achieve such an objective.

5. The California Department of Fish and Game has authority to issue pollution abatement orders to stop the discharge of materials deleterious to fish and wildlife. The success of this control program has been mixed because Section 5650 of the Fish and Game Code does not specifically define silt and sediment as materials deleterious to fish life.

6. The TRPA land use plan and various ordinances recognize the inherent capability of the land to withstand development without causing increased erosion and sedimentation. However, the ordinances must be enforced and aggressive field construction inspections carried out.

The widespread and transient nature of the problem has made erosion and sedimentation control a most difficult exercise. The legal and administrative authorities are limited in scope and application. The need is for clarification of legal authorities, and for a unified and coordinated intergovernmental approach to control.

WATER SUPPLY

The California-Nevada Water Compact which proposes to allocate the waters of Lake Tahoe and the Truckee River to each state is not yet a reality; it remains to be ratified by the U.S. Congress. However, the allocation to the Tahoe Basin has become so familiar that it is used as a de facto water policy despite its present lack of legal validity.

The ultimate planned development and the rate at which that development occurs in the Tahoe Basin may be conflicting with the amount of water which may be available either under the proposed Water Compact or as a result of water rights litigation. Nevertheless, development is proceeding without a full reconciliation between development and available water.

There is a primary need to coordinate water rights administration in each state with land use planning. The California SWRCB and the Nevada DWR each need to keep better records in order to provide the land use decision-makers with up-to-date records of water rights, permits, applications with respect to available remaining supply. That task is made difficult by the existing water supply arrangements with some 82 water purveyors tapping water from springs, wells, and lake intakes. There is therefore a secondary need to better coordinate water service through actions of the Public Utility Commissions and Local Agency Formation Commissions.

In a larger sense, the governmental agencies that manage the water resources and regulate water use in the Tahoe Basin have not fully considered the cumulative effect of the decisions made at Tahoe on downstream interests. The current legal fight to establish the Paiute Indians' aboriginal rights to water to sustain a native fishery in Pyramid Lake may have major implications for future development and water use in the Tahoe Basin.

TRANSPORTATION

Intergovernmental problems with respect to highways are minor. Most major access roads have been built and virtually all new roads and improvements within the Basin are held in abeyance pending completion of the Transportation Plan. The State of California is presently declassifying the Westshore Freeway route. The State Highway Departments have developed extensive coordination mechanisms with other agencies and local interests.

However, immediately outside the Basin a project is underway which shows an apparent lack of intergovernmental coordination. In Chapter III the economic aspects of gaming and employee housing in the Stateline area was discussed. The external effect was noted in that the low supply of suitable employee housing in the Tahoe Basin was creating pressures to urbanize the Carson Valley to provide housing. The highway link between the Carson Valley and Stateline consists of State Route 19 over Kingsbury Grade - a treacherous route, particularly in the winter season. The U.S. Forest Service, Through the Federal Highway Administration, is constructing major improvements to that road as a Federal Highway Project - Kingsbury Grade Forest Highway.

This road improvement, by accommodating the commuter traffic between Carson Valley and Stateline, may increase the traffic to the already severely congested Stateline area. Pressures to upgrade streets, build parking lots, and re-route to a by-pass highway greatly compounds the development of a Transportation Plan for the Tahoe Basin.

REGULATION OF PRIVATE DEVELOPMENT

The Tahoe Regional Planning Agency is the central public institution with authority to regulate private activities; in particular, the regulation of the use of private lands. The legal foundations for such regulation are embodied in the Tahoe Regional Plan. While implementation of the Land Use Ordinance has apparently been successful (within the constraints of Compact limitations as discussed in the next chapter), land use regulation, by itself, cannot fully provide the regulatory framework to adequately control private development. The full range of planning elements as specified in the Compact are necessary. To the extent that the Tahoe Regional Plan is incomplete, the regulation of private development suffers.

But the Tahoe Regional Plan must be implemented by the TRPA in the context of all other Federal, state, and local actions occuring in the Basin. The major infrastructure elements of water supply, sewage disposal, and transportation which are presently provided by Federal, state, and local agencies may accommodate or stimulate development in the private sector. The major enforcement actions in air pollution control and water pollution control carried out by Federal, state, and local agencies may further influence development in the private sector.

The central point here is that truly effective regulation of private development depends on a coordinated Federal, state, TRPA, and local governmental strategy to integrate planning, regulation, and enforcement into a unified plan of environmental protection. That level of intergovernmental coordination has yet to be achieved in the Lake Tahoe Basin.

ECOSYSTEM MANAGEMENT

The planning and regulation of land use, water quality, and air quality in the Tahoe Basin take the traditional form of managing the individual resources of land, water, and air to conform to desirable "end-states". For example, the Tahoe Regional Plan defines, by means of maps and policies, the "ultimate" pattern of land use consistent with the capability of the land to withstand development. The Water Quality Standards define, by means of static indicators, the "ultimate" physical, chemical, and biological condition of the waters consistent with maintaining its purity and clarity. The National Ambient Air Quality Standards define, again by static indicators, the "ultimate" composition of the air consistent with public health criteria.

By focusing on the end condition not-to-be-exceeded, we lose sight of the dynamics of change associated with individual decisions made over time. Each land use development approved, while perhaps consistent with the planned "end-state", contributes to an increment of cumulative and synergistic ecological change - each square foot of impervious surface changes the hydrology, each pound of sediment and nutrients changes the productivity of the waters, each pound of air pollutants changes the atmospheric quality. It is quite possible that the sum of the individual decisions and ecological changes could result in (a) an "end-state" being exceeded, (b) an "end-state" being reached "prematurely", or (c) the "end-state" for one media being satisfied at the expense of violating the "end-state" of another media.

The "end-state" concept, while theoretically useful for individual media as a planning target, may be irrelevant to guiding the complex growth processes to meet the objective of "preserving" the fragile ecology of Lake Tahoe." Rather, what is needed in an ecologically sensitive area such as Tahoe is a "threshold" concept - an approach which can assess synergistic rates of ecological changes, compare the rates of change to threshold values beyond which ecological damange occurs, and provide feedback and warning signals to guide decision-makers in managing the growth process.

Many agencies and organizations are active in research, data collection, and trend monitoring of environmental conditions at Lake Tahoe. Some of the water quality research for example can be viewed as initial phases of work toward defining thresholds of nutrient input, lake fertility, and phytoplankton growth. However, the majority of the environmental research and monitoring, while providing some environmental and ecological feedback to decision-makers, is not designed to achieve an objective of "thresholds" management. A "thresholds" concept for ecosystem management could be implemented within the existing planning, regulatory, and research communities if specific direction or authorization could be mandated.

ENVIRONMENTAL IMPACTS

To "consider the effect of various actions in terms of their environmental impact on the Tahoe Basin, treated as an ecosystem" mandates a review of the diverse set of activities of the Federal and state agencies as well as the activities of the Tahoe Regional Planning Agency. Given the definition of the "Tahoe ecosystem" as presented in Chapter V, any macro analysis of agency activities and intergovernmental problems with respect to the micro details of the ecosystem would be quite cumbersome, and accordingly a generalization of environmental impact will be presented.

There are two basic types of actions which may yield an environmental impact - public actions and private actions. A public action by itself may yield a direct environmental impact. Alternatively, a public action may yield an indirect environmental impact by making a private action possible, or by regulating a private action. Therefore, public agencies are accountable for the impact of their own actions as well as actions they stimulate or regulate in the private sector.

Reviewing the public actions of the Federal and State agencies as complied in Table 6 reveals that several categories of activities do not yield an environmental impact. For example, "Administrative and Advisory Responsibilities" in Table 6A and "Research Responsibilities" in Table 6D are not associated with producing an impact although they may be associated with mitigations of impacts.

On the other hand, "Functional Responsibilities" in Table 6B are direct actions of public agencies which may produce an environmental impact. For the sake of analysis, three generic areas of functional responsibility are extracted from Table 6B, and certain activities within each area are listed and the generalized environmental impact is noted.

1. Resources Management

   a. Water resources system operation: Varying the water storage pool in Lake Tahoe contributes to increasing wave cutting of the shoreline and beach erosion, which in turn creates conditions of turbidity in near-shore areas.

   b. Land acquisition: Placing more private land under public ownership decreases the supply of private lands which may act to increase use intensity on the remaining private lands. At higher density, increased traffic congestion increases automobile emissions which degrade air quality.

c. Fire control: Fire prevention and aggressive wildfire suppression have reduced the average annual burned acreage, resulting in an associated increase in fuel mass.

2. Resources development

a. Campgrounds and state parks: Providing recreational facilities may attract increased visitor use. Localized impacts include creation of impervious surface (roads, camping pads, pedestrian compaction) and associated runoff and water quality effects; vegetation damage; and interference with wildlife habitat. Areawide effects include increased traffic and congestion producing increased automobile emissions which degrade air quality.

3. Infrastructure

a. Highways and highway maintenance: Although new highway construction is presently held in abeyance, the continuing runoff from the existing impervious highway surface, and erosion of cut and fill slopes seriously threatens water quality in Lake Tahoe. Deicing sand and chemical salts used on winter roads enter the hydrologic cycle through the runoff process and therefore further contribute to water quality problems and vegetation damage.

b. Sewerage facilities: Direct impacts of the traditional trench-and-fill placement of sewer lines in the fragile soils creates soil disturbances and erosion potential with the consequent threat to water quality. Indirect impacts result from the urbanization which the sewerage facilities accommodate.

In Table 6C "Implementation and Enforcement Responsibilities" various public activities are carried out to regulate the effects of private (and public) activities. Of primary interest are the regulatory mechanism to prevent water pollution and air pollution. The legal and intergovernmental problems in carrying out these regulatory activities were noted above. To the extent that effective regulations cannot be carried out, increasing water quality degradation and increasing air quality deterioration can be expected to result.

IDENTIFICATION OF OTHER PROBLEMS

One of the more important aspects of the current situation at Lake Tahoe is the issue of "What the future of Tahoe should be." Over roughly the last decade an intense controversy has raged; and yet, a final resolution is still not in sight. Two important factors influence the issue: the competing interests and expectations; and a political and institutional forum within which those interests can be reconciled.

In general, there are three competing interest groups, each with their vision of Tahoe:

1. Those who believe that continued urbanization with minimum environmental controls is necessary to realize business opportunities and economic prosperity.

2. Those who believe that urbanization could proceed but only within the narrow constraints of environmental capability.

3. Those who believe that urbanization has proceeded too far and that a no-growth policy (and a possible roll-back) is warranted.

Each group recognizes and appreciates the beauty of Lake Tahoe *per se*. Each group further recognizes that urbanization and development on private lands has proceeded too far to recapture the essence of Tahoe through a national park (such as Crater Lake). The issue is principally founded upon urban form, scenic beauty, public access, recreational opportunities, and property rights.

Compounding the issue of these competing interests is the lack of a clearly defined constituency of residents - a Tahoe community. The landowners/taxpayers are largely absentee, and are not organized. The majority of interests originate from *outside* the Tahoe Region, and attempt to influence a political and institutional structure *within* the Tahoe Region.

The search for a political and institutional forum to address and resolve the various interests has been long and frustrating. For the past four years the Tahoe Regional Planning Agency has been the institutional focus for an attempt to come to grips with "what the future of Tahoe should be." The Compact created TRPA "to adopt and enforce a regional plan of resource conservation and orderly development, and to exercise effective environmental controls...." The Compact further specifically defined and limited the powers and authorities of the TRPA to carry out such mandate.

The Tahoe Regional Planning Compact is the first national attempt to lodge environmental planning into an interstate regional context. Any newly formed agency with such a broad mission may expect some rough sledding in its formative years, especially in view of the level of controversy at Lake Tahoe. The TRPA must deal with such substantive questions as:

1. The constitutional rights of individual property owners vs. environmental mandates.

2. The socio-economic development of a resort destination area whose environment is potentially threatened by the very groups who seek such environmental amenity.

3. The daily maintenance of political balance among environmentalists, landowners, land developers, and governmental jurisdictions within the Basin.

The Tahoe Regional Plan as adopted to date by TRPA is in compliance with the mandate of the Compact. However, the Plan does not satisfy and resolve the interests and expectations of all groups. Those who believed that further growth and development would cease upon adoption of a Plan have been disappointed as new structures, approved as in conformance with the Plan, rise on the Tahoe landscape. Conversely, those who intended to develop their property have been dismayed as the Plan severely limited the anticipated use.

The TRPA is under continuous pressure to compromise long-range environmental goals for short-term economic gains. With each decision of the Governing Body, the interests further diverge and the political and institutional structure of TRPA is further stressed. At this crucial juncture in the life of TRPA, it is most important to understand why TRPA has not been able to fully reconcile the various interests and expectations. The following sections discuss several aspects of the problem.

PUBLIC PARTICIPATION

One difficulty which TRPA is experiencing in reconciling various interests and accommodating them in the implementation of the Plan is in the area of public participation. Participation requires information, and there are two areas where the "public" has not been fully informed:

1. The "public" has not been fully informed of the purposes of the *Tahoe Regional Planning Compact*, and the legal powers and procedures which are specified therein. A conflict is inevitable where an interest group expects an action or result which is outside the legal authority of TRPA to perform.
2. The "public" has not been fully informed of the *Tahoe Regional Plan* and the ordinances which implement that Plan. The ordinances are very complex instruments which attempt to link the ecological factors of the Basin to the legal tools available to TRPA. A conflict results when either the ecological factors or the legal tools are misunderstood.

The public meetings sponsored by EPA for this Study to gain insight from "members of the public" produced a remarkable consensus of citizen frustration in an inability to participate in and influence the course of TRPA decision-making. The fact that citizen *representation* through an elected Governing Body does not presently exist under the Compact should not preclude a role for citizen *participation*.

COMPACT LIMITATIONS

The Compact did not constitute TRPA as a regional government for the Tahoe Region. Rather, it established a planning agency with a very limited set of legal powers to implement the specified plans.

The Compact mandates that the TRPA shall follow the policy direction of "resources conservation and orderly development." The Compact gives no direction as to the suitability of development in the Tahoe Basin. A lack of suitability criteria has greatly contributed to the social, economic, and environmental conflicts noted above.

The principal legal tool granted TRPA is the police power - the power to regulate individual activity in the interest of the safety, health, and well-being of the whole population. TRPA exercises the police power in its planning, zoning, subdivision, and development standards activities. The ordinances and regulations adopted by TRPA provide for minimum regional standards to implement the Regional Plan.

The Compact did not grant TRPA the additional powers normally exercised by a traditional general purpose government. TRPA does not have the legal authority to: (1) assess property and impose taxes to raise operating revenue or to support a bonded indebtedness; (2) accept, hold, or acquire real property; (3) exercise the power of eminent domain to take private property, for fair compensation, for a public purpose.

The Compact further limits the powers of TRPA by excluding the regulation of gaming on land zoned for such activity in a Master Plan approved on or before February 5, 1968. This limitation is very serious by virtue of the fact that continued expansion of gaming facilities can effectively invalidate TRPA's land use and transportation plans due to the nature of economic activity associated with gaming (hotels, motels, service facilities, employee housing) and the automobile traffic (with associated air pollutant emissions) generated by the gaming facilities. Such exclusion also acts to heighten the tension between the States of California and Nevada regarding the gaming industry at Lake Tahoe.

The Compact provision for "a majority vote of the members present representing each state to take action with respect to any matter" is a serious limitation on the ability of TRPA to effectively function as a bi-state agency. The dual majority provision can and does allow one state to refuse to cooperate or compromise with the other state. A motion could get a 7-3 majority and still fail. The inability of TRPA to either approve or deny a motion results in a decision by default as the 60-day review period expires.

Other equally important Compact limitations are discussed below in the context of financial problems, legal problems, and enforcement problems.

LOCAL/NONLOCAL ISSUES

The legislative deliberations in each state in formulating the Compact were marked by conflict over the question of determining the balance to be struck on the TRPA Governing Body between representatives of local governments, on one hand, and representatives of the broader public interests, on the other. Despite the intention of the original bill to give these latter interests the upper hand, the act as it finally emerged provided that six out of ten voting members would be representatives of the local governments in the Basin.

Given the dominant local representation, many people concluded in despair that despite the creation of TRPA, the fate of Lake Tahoe basically remained in the hands of those who had already proved unable to confront the problems of environmental degradation. Accordingly, there have been many calls for institutional restructuring to give nonlocals the majority representation. The assumption underlying the call to change the membership formula is that there is a fundamental local/nonlocal conflict at work in environmental decision-making at Tahoe; and that the voting behavior of the Governing Body reflects this conflict.

A comprehensive study of voting behavior on the TRPA Governing Body was performed by the Tahoe Research Group, U.C. Davis (Costantini, et. al.). Analysis of the roll-call votes was made for each state delegation (due to the double majority rule noted above) over the period April 1970 to January 1973. Local/nonlocal voting differences are evident only for the California delegation; the data indicates that California locals are somewhat less responsive to environmental values than nonlocals. The data do not show that locals are to a man and on every issue hostile to the achievement of environmental values. Conversely, nonlocals are not uniformly and in every instance favorable toward pro-environmental policy positions. These results, therefore, do not necessarily lead to the conclusion that the balance of power should be shifted to nonlocals.

In this respect, the California legislation sponsored by Assemblyman Z'Berg (AB1944) and signed by the Governor on October 1, 1973, is of particular interest. One of the provisions of the bill increases the number of nonlocal members of the CTRPA from two to three and adds, as a seventh member, a chairman to be selected by the other six. This change in California law will not affect the composition of California's delegation to TRPA under the Compact.

While California's action may be an initial step toward reconstituting the bi-state TRPA, the interim result is to create a rather cumbersome decision structure. Presumably, with greater nonlocal representation, the CTRPA would act to impose higher standards than TRPA in the California portion of the Basin; however, based on the past local/nonlocal voting behavior, there is no assurance that this would indeed happen.

PLAN IMPLEMENTATION/LEGAL

The adoption of the Tahoe Regional Plan constituted a major and comprehensive re-zoning of the lands in the Tahoe Basin. Such regional zoning patterns, based upon the classification of lands by land capability, resulted in many changes to the land use and use intensity allowed under former zoning by the local governments.

Challenging such far-reaching exercise of the police powers of the TRPA, many persons affected by down-zoning have sought legal redress alleging that such zoning constituted a "taking" of property without just compensation.1/ Claims for damages due to "inverse condemnation" have been filed against the TRPA; such claims now total in excess of $250 million. Roughly $50 million of those claims are now in active lawsuits in the courts of the two states as well as the Federal District courts. In addition to lawsuits entered against TRPA, several of the suits have named the members of the Governing Body and members of TRPA staff as parties to the suit. Legal defense of the TRPA against these suits is of paramount importance. The long-range implementation of the Regional Plan and the very existence of the TRPA are seriously at stake. (In addition, these suits are possibly at the cutting edge of the

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1/ The Fifth Amendment to the United States Constitution: "...nor shall private property be taken for public use without just compensation."

law of land use regulation, and precedent established here will determine the viability of land use regulation elsewhere.) Emergency appropriations for legal defense have been made by the California and Nevada legislatures, and a legal team has been assembled.

FINANCIAL PROBLEMS

The TRPA is faced with substantial problems in financing its own planning and regulatory needs. The Compact specified a budget of $150,000 to be contributed by the local governments. This apportionment does not provide for inflation, nor was the extent of the planning and regulatory program known when the budget was established. The local contribution is supplemented by funds from each state, which total $75,000 for FY 1974. The local and state funds are further supplemented by $75,000 of HUD 701 funds.

Financial constraints which preclude the full and expert staffing of an administrative team to process and review development applications impairs the ability of TRPA to deal with the deluge of applications from private entrepreneurs and their consultants. Financial constraints which have delayed the completion of various plan elements impairs the ability of TRPA to fully account for all factors prior to a decision. Financial constraints which preclude the monitoring and inspection of construction activities impairs the ability of TRPA to enforce the ordinances.

COOPERATION OF LOCAL GOVERNMENTS

The Compact sets forth that all provisions of the Tahoe Regional Plan shall be enforced by the TRPA, the states, and the counties and cities in the Region. The TRPA regional ordinances are binding upon the local governments as minimum standards, although any political subdivision may adopt and enforce equal or higher standards.

In the development review process, applications begin in the county of origin where they are judged in conformance with the county ordinances and in conformance with the regional ordinances. Upon review of the county decision by TRPA, many cases of disregard for the regional standards have been found. Various reasons exist for such disregard of the regional standards: (1) a resistance to a new system at the local planning staff level; (2) an unwillingness to deny a project and bucking the decision up to TRPA; (3) an opinion that the regional ordinances are unenforceable and therefore not binding upon the county.

The Compact provides that TRPA shall police the region to insure compliance with the General Plan and adopted ordinances, rules, regulations, and policies. If it is found that the General Plan, ordinances, rules, regulations and policies are not being enforced by a local jurisdiction, the agency may bring action in a court of competent jurisdiction to ensure compliance. Unfortunately, the financial constraints noted above have precluded effective policing and legal action against uncooperative local jurisdictions.

The cooperation of the local governments is essential for the effective implementation of the Regional Plan. Without such cooperation, the TRPA may be forced to move into greater and greater responsibility over the issuance of purely local permits.

ECONOMIC FACTORS

The economy of the Tahoe Region has been sustained principally by external economic factors. The continued high demand for land, amenity, gaming, and outdoor recreation insures that external economic pressure will make it very difficult to implement the Regional Plan. For example, in delineating the spatial dimensions of urban land uses, the TRPA limited the supply of land. Compared to the high demand for land, a conflict is inevitable. To the extent that the conflict is resolved by increasing the use intensity or density, environmental problems may be increased.

The economic forces of the demand for land for recreational homesites may tend to urbanize lands outside of and contiguous to the Tahoe Basin. Such urbanization could add to the difficulty of implementing the Regional Plan. For example, external economic factors of urbanization in Martis Valley could lead to the development of North Lake Tahoe as a service center for the Truckee Basin area. As a general policy, the Tahoe Regional Plan does not envision the development of the north shore for such purposes.

While the external economic factors are important, the pattern of economic infrastructure which has been established is probably more significant. The property taxation system and sewerage systems have each left an economic legacy that will impede implementation of the Regional Plan.

In the recreational land development boom of the 1960's, local governments gave considerable importance to increasing revenue by expanding the tax base. While all development has attendant service costs, the second-home subdivision at Lake Tahoe proved to be a bonanza to the local governments. The subdivision was taxed high but the service costs were relatively low due to the low build-out rate and the seasonal nature of the residency. This "golden goose" resulted in extensive acreage being subdivided at a rate far in excess of the rate at which the building market could utilize such land.

The owners of that subdivided land acquired legally enforceable rights to build. These rights can only be taken back by acquisition. This task is very difficult in view of the economic interests now vested in that property.

The subdivision and urbanization of land was accompanied by the provision of sewers. Sewerage facility capitalization needs were extremely large and the utility districts incurred substantial amounts of long-term bonded indebtedness to finance the sewer construction. The retirement of the bonds is dependent upon increasing population growth trends. Where the growth rates within a utility district follow the forecasts used for financial planning, all is well.

However, the Tahoe Regional Plan represents a major shift in land use policy such that the capitalization programs of the utility districts are seriously jeopardized. While the Plan resulted in immediate changes in land use and use intensity, the debt structures are not amenable to rapid change. In some of the utility districts, the amount and value of land available for development under the Plan is insufficient to retire the bonds which have been sold. Very strong pressure therefore exists to relax the development restrictions on such lands.

ASSESSMENT: ADEQUACY OF FEDERAL OVERSIGHT

A principal objective of this Study is to determine the "adequacy of Federal oversight and control in order to preserve the fragile ecology of Lake Tahoe." Lacking a specified role of Federal oversight and control to which actual Federal agency performance can be measured, this evaluation is based entirely upon the ecological criterion: is Federal oversight and control adequate to preserve the fragile ecology of Lake Tahoe?[1]

This evaluation proceeds from two perspectives:

1) management of the public lands
2) regulation of activities on private lands

The public lands comprise roughly 62% of the land area in the Lake Tahoe Basin (National Forest 57%, State Park 5%). New land acquisitions currently in progress will increase the public holdings in the Basin. Management of these lands is crucial toward preserving the "fragile ecology of Lake Tahoe". The National Forests are administered for outdoor recreation, range, timber, watershed, and fish and wildlife purposes. The State Parks are managed for outdoor recreation and other environmental values. Although environmental impacts have been noted for certain management and development activities on the public lands, an assessment must be made that Federal (and State) oversight and control in the management of public lands is adequate to "preserve the fragile ecology of Lake Tahoe."

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[1] This language follows from the statute, Section 114, Federal Water Pollution Control Act. The complexity of the Lake Tahoe ecosystem and man's present understanding of it preclude a rigorous interpretation of this criterion. Rather, "adequacy" is judged in a relative and general sense.

The Tahoe Regional Planning Agency and the general purpose local government exercise prime planning and regulatory responsibilities over activities on the private lands. However, such responsibilities are supplemented, in very large measure, by the following Federal (and State) agency actions which indirectly influence the course of urbanization on the private lands:

a) provision of urban infrastructure, in particular sewers and sewer capacity;

b) permitting of construction in or on the navigable waters of Lake Tahoe;

c) issuance of mortgage loan guarantees;

d) construction of transportation facilities;

e) regulation of air and water pollution; and

f) permitting the use of Federal lands to accommodate private development - e.g., road access, utility rights-of-way, wastewater disposal areas.

In view of the legal and intergovernmental problems identified and the environmental impacts noted from intergovernmental activities, a serious question of "adequacy" arises. A good case in point is the problem of erosion and sedimentation control. The lack of strong and precise legal tools to control either the activity which generates the erosion (source controls) or the introduction of the sediment to the Lake (effluent limitations) certainly portends that the clarity of Lake Tahoe may not be preserved. An assessment must be made that Federal (and State) oversight and control in the regulation of activities on the private lands is presently inadequate to "preserve the fragile ecology of Lake Tahoe."

There is therefore a clear "necessity for redefinition of legal and other arrangements" to resolve the apparent dichotomy of adequacy between management of the public lands and regulation of activities on the private lands.

TOOLS AVAILABLE TO RESOLVE PROBLEMS

In response to the diverse set of problems and environmental impacts identified and discussed above, a series of tools is developed to resolve such problems. Although the tools are listed separately, they are not intended to be mutually exclusive; some or all of the tools could be applied in whole or in part. Several of the tools could take alternative forms; accordingly, options are set forth. Some of the proposed tools and options discussed below may require legislative changes in Congress, in one or both states, and in lower jurisdictions; while other of the proposed tools and options are amenable to administrative decision.

FEDERAL POLICY/CONGRESSIONAL OVERSIGHT

There is no lack of Federal policies at work in the Lake Tahoe Region. As noted in Chapter VI, the several Federal agencies are each implementing several sets of policies which directly and indirectly affect Tahoe. The need is to redraw and focus such disparate policies into a cohesive statement of Federal policy towards Lake Tahoe. A _proposed_ statement of Federal policy developed by EPA in consultation with the other Federal agencies is presented on the following pages for the consideration of Congress.

To assure the Congress that the national interest is being served by the Federal agencies under the Federal policy and by the Tahoe Regional Planning Agency under the _Tahoe Regional Planning Compact_, an appropriate committee of Congress could hold public oversight hearings. Such hearings would be scheduled during each session of Congress and held at a location in the Tahoe Region.

PROPOSED FEDERAL POLICY

It is found and declared that:

1. The Federal interest in the Lake Tahoe Region is substantial and includes:

    a) ownership of 57% of the land area administered as National Forest,

    b) ultimate responsibility to attain and maintain the National Ambient Air Quality Standards, including prevention of significant deterioration of existing high quality air,

    c) responsibility to oversee the states' implementation of Water Quality Standards for the navigable waters of Lake Tahoe, including a policy of non-degradation,

    d) approval of all works constructed in or over the navigable waters of Lake Tahoe, and

    e) management of Lake Tahoe-Truckee River water resource in accordance with court decrees.

2. The Tahoe Regional Planning Agency is duly constituted under the Tahoe Regional Planning Compact to "adopt and enforce a regional plan of resources conservation and orderly development, to exercise effective environmental controls ...." for the private lands in the Tahoe Region.

3. The Tahoe Region exhibits significant interaction between public lands and private lands.

4. The Tahoe Region exhibits environmental and ecological values which are irreplaceable.

5. Maintenance of the social and economic health of the Tahoe Region depends upon maintaining the high quality scenic and environmental experience.

6. Increasing urbanization is threatening the ecological values of the Tahoe Region and threatening the public opportunities for the use of public lands.

Therefore, it is the policy of Congress that:

1. Lake Tahoe and the surrounding basin lands are declared an area of national environmental significance.

2. The Tahoe Regional Planning Agency, acting under authority vested by the Tahoe Regional Planning Compact, is the most appropriate institution to plan for and regulate the use of private lands in the Tahoe Region.

3. The Federal government, through its constituent agencies, shall coordinate its activities so as to provide technical and financial assistance to the Tahoe Regional Planning Agency to achieve the mandate of the Compact.

4. The Federal agencies are directed to program their activities in the Lake Tahoe Basin to support state efforts to achieve the following goals and objectives:

    a) Protect the present unique natural qualities of the waters of Lake Tahoe and the tributary lakes and streams, and prevent the degradation of such high quality water.

    b) Maintain the present high air quality, and prevent the significant deterioration of air quality.

    c) Protect and maintain the native vegetative cover with emphasis on maintaining the diversity and vigor of natural plant communities.

    d) Protect and maintain fish and wildlife habitats with emphasis on marshes, meadows, and stream environment zones.

e) Manage the Federal lands for multiple use purposes while protecting scenic and other environmental qualities.

f) Seek an optimum public land ownership pattern to provide increased public access and use of lands for outdoor recreation, to protect scenic and open space values, and to protect critical watersheds and fish and wildlife habitats.

g) Provide a variety of recreational opportunities for people of all economic levels consistent with the constraints imposed by the natural capabilities of the land and within the limitations of use which will insure a high quality recreation experience.

h) Provide for a variety of resource use opportunities consistent with the constraints imposed by the natural capabilities of the land.

i) Preserve and protect the cultural resources, including archaeological, historical, and natural landmarks.

5. All public funds allocated to the Lake Tahoe Basin for the purpose of assisting local governments in providing utilities or services shall be conditioned upon an assurance that the public lands (and development thereon) shall be adequately served.

6. The maximum amount of public participation in the Federal decision process shall be provided and permitted.

ENVIRONMENTAL THRESHOLDS

The Tahoe Regional Planning Compact sets forth the policy concept of "resources conservation and orderly development." The planning and development review process that has been established to implement this mandate relies heavily upon the delineation of ultimate environmental conditions or "end-states" -- land use maps, receiving water quality standards, and ambient air quality standards. (Refer to Ecosystems Management, page 73). There is presently no true appreciation of the long term dynamics of environmental and ecological change as development proceeds; and there is no true appreciation of the environmental and ecological impact as the ultimate conditions are approached and/or reached. It is conceivable that in the long run "orderly development" may be incompatible with "resources conservation."

To provide guidance in the exercise of Federal, state, regional, and local government environmental management responsibilities in the Lake Tahoe Basin, the following major tasks could be initiated and accomplished:

1. An extensive study of projected future conditions in the Lake Tahoe Basin for the purpose of assessing the potential social, economic, environmental, and ecological impacts of further urbanization; and

2. The development and establishment of "environmental thresholds" to guide the complex growth processes within the bounds of Federal/state environmental quality standards and to meet the Compact mandate of "resources conservation and orderly development."

A "thresholds" approach to environmental management would initially involve the specification of threshold values for the Tahoe ecosystem. The specification of the values would be based upon current (and future) research, and upon trend monitoring of environmental and ecological conditions at Lake Tahoe. Examples of "thresholds" might include: rate and extent of impervious surface coverage per watershed; rate of nutrient input to Lake Tahoe; rate of increase in lake fertility; rate of growth of phytoplankton; etc. The "thresholds" would provide the linkage between a cumulative set of land development decisions and the Federal/state environmental quality standards which may not be exceeded. The "thresholds" approach would involve an assessment of synergistic rates of ecological change, a comparison of the rates of change to threshold values, and a feedback and warning system to guide decisionmakers in managing the growth process.

A "thresholds" concept for ecosystem management could be implemented within the existing planning, regulatory, and research communities if specific direction or authorization could be mandated.

COMPACT MODIFICATIONS

The Tahoe Regional Planning Compact is now four years of age - four years of interpretation, four years of mixed success, four years of intense experience. From those four years, conclusions can be drawn that the Compact has several basic and serious deficiencies which now impede efforts to carry out the Compact mandate.

It is a long step from recognizing the need for Compact changes to actually carrying out such changes. The process must be initiated at the state level, and requires separate actions of each state legislature, concurrence between the legislatures, and Congressional action. An indication of the time involved can be shown by the fact that the Nevada legislature does not convene again until January 1975. And there is considerable risk in opening the Compact to adjust the deficiencies; more drastic and far-reaching changes could be attempted by various groups. The ensuing fight could threaten to prematurely scuttle efforts at regional environmental planning in the Tahoe Basin.

The risk of opening the Compact must be weighed against the continuing operation of TRPA at less than full effectiveness. Accordingly, the states, jointly and concurrently, should begin debate on the Compact to consider the following types of possible adjustments (with precise language developed by the legislatures):

1. Strike the provision for a dual decision rule in order to constitute a true bi-state agency Amend Article III(g) of the Compact to read: "A majority of the members of the governing body shall constitute a quorum for the transaction of the business of the agency. A majority vote of the members present shall be required to take action with respect to any matter."

2. Grant the Federal representative to the TRPA governing body full voting status. The Federal representative would have one vote on all matters before the TRPA. In addition to expressing the Federal interest and Federal policy, the Federal vote

would serve as an effective "tie-breaking" vote in the event the state and local delegates evenly deadlocked. [See also options for Federal coordination]

3. Provide for alternative and flexible financing of the operations of the TRPA. Possible options include:

   (a) obligating each state for a base contribution with provision for inflation;

   (b) change the $150,000 county support from a maximum to a base contribution, and provide for increasing county support as the assessed value of property in each county increases.

   The State of California, in AB1944 (October 1973), has already taken steps toward refinancing by providing that the California Tahoe Regional Planning Agency be funded by the State rather than by the counties.

4. Strike the entire provision in Article VI(a) of the Compact:

   "Every plan, ordinance, rule, regulation or policy adopted by the agency shall recognize as a permitted and conforming use any business or recreational establishment which is required by law of the state in which it is located to be individually licensed by the state, if such business or establishment:

   > "(1) Was so licensed on February 5, 1968, or was licensed for a limited season during any part of the calendar year immediately preceding February 5, 1968.
   >
   > "(2) Is to be constructed on land which was so zoned or designated in a finally adopted master plan on February 5, 1968, as to permit the construction of such a business or establishment."

The Compact should simply provide that all business required to be licensed by either state would receive equal treatment under the Compact.

5. Provide that TRPA evaluate the environmental impact of its policies and plans, with such analyses being reported annually to each state legislature and to Congress. Provide for periodic reports on environmental trends and conditions at Lake Tahoe.

6. Reconstitute the formula for Governing Body representation by the appointment of one more non-local member by the Governor of each state. Such member from each state would represent the general public interest. Such additions would balance the local/non-local representation.

   The State of California, in AB1944 (October 1973), has already taken steps toward changing the representation formula by providing that the California Tahoe Regional Planning Agency be reconstituted by the addition of one more non-local member appointed by the Governor and a new member chosen by the other six members.

MECHANISMS FOR FEDERAL/STATE/REGIONAL COORDINATION

The multitude of governmental agencies, programs, and activities present within the relatively small area of the Lake Tahoe Region has led virtually every observer of Tahoe to conclude that "coordination" is necessary, with the assumption that "coordination" will resolve the host of intergovernmental problems. Coordination is an elusive word; it has little utility as a recommendation unless it is properly defined. Coordination is sometimes a process, sometimes a result. Agencies are coordinated, so are levels of government, so are programs and projects.

In terms of process, coordination may be lateral - consultation, sharing of information, and negotiation among equals. Or it may be the settlement of a conflict by the decision of a "coordinator". Or it may be a combination of these - a process in which lateral coordination is expedited, facilitated, and even enforced by leadership and pressure from an independent or more powerful coordinator.

In terms of result, coordination means consistency, mutual reinforcement, the absence of conflict and duplication. The ultimate purpose of coordination is to harmonize programs and projects, and interrelate them constructively at the point of impact.

Much of the discussion that treats lack of coordination at Tahoe as a Federal problem may be misdirected. It is not Federal programs only that must be interrelated; Federal programs must be coordinated not only with one another, but also with state, regional, and local programs. The existence of the Federal establishment in no way transfers all the responsibility for the coordination process from the states and TRPA to the Federal government. In fact, the Compact clearly mandates a major role for the TRPA:

> "to harmonize the needs of the region as a whole, the plans of the counties and cities within the region, the plans and planning activities of the state, Federal, and other public agencies and non-governmental agencies and organizations ....".

Since the TRPA is clearly mandated by the Compact to coordinate activities between the two states and the various general purpose and special purpose units of government, that role as a "coordinator" should continue to be carried out with strength and leadership. The interface between TRPA and the Federal establishment is the "weak link." Accordingly, various possible structural alternatives for Federal coordination are set forth.

1. Federal Coordinators Committee: The existing committee of "interested" agencies operating under the general direction of the Presidential Appointee to TRPA would continue to operate. Membership would principally consist of staff-level representatives with agency directors involved for major policy issues.

   There would be no Federal agency commitment of funds or personpower; moreover, there would be no formal commitments to coordinate agency activities. Coordination would be lateral and consist of consultation, sharing of information, and negotiation among equals.

   The Presidential Appointee would probably continue to be designated from a line operating agency; that agency would assume the status of a "lead" agency on the Committee. The Presidential Appointee would solicit input from the various agencies in presenting a coordinated Federal position in the TRPA decision structure, however, the Presidential Appointee would continue to have no voting rights on the TRPA Governing Body.

2. Tahoe Executive Committee: A Tahoe Executive Committee would be created as a subcommittee of the Western Federal Regional Council. Membership would include Regional Administrators and Secretary's Field Representatives (or appropriate Departmental designee) from the following agencies:

   (1) Department of Agriculture
   (2) Department of Defense
   (3) Environmental Protection Agency
   (4) Department of Housing and Urban Development
   (5) Department of the Interior
   (6) Department of Transportation

The Presidential Appointee to TRPA would be designated from one of these agencies and would serve as Chairperson of the Committee.

The primary functions of the Committee would be:

(1) To review and wherever possible coordinate major Federal and TRPA objectives, programs, policies, and actions relating to the Lake Tahoe Region;

(2) To advise and assist the Federal representative to TRPA in formulating and presenting Federal views on pertinent subjects considered by TRPA;

(3) Provide a clearinghouse review for all Federal grant programs.

The Committee would formalize commitments to coordinate activities. The coordination process would have a structural focus such that lateral coordination would be expedited, facilitated, and enforced by leadership and pressure from the higher level Western Federal Regional Council. In carrying out the process of coordination, maximum utility would be made of the research and intergovernmental coordination procedures already established by the NSF-funded Lake Tahoe Area Research Coordination Board.

With the combined and unified authority of the Committee available to assist the Presidential Appointee, the "Federal position" could be expressed through the formal mechanism of one Federal vote on the TRPA Governing Body.

3. Federal Administrator: The President would appoint a full-time senior level official as the Federal Administrator and Presidential Appointee to the TRPA. The Administrator would not be associated with any line agency and would report to the President's Domestic Council.

The Administrator would be empowered by Executive Order to perform the following tasks:

1) Through the Western Federal Regional Council, institute and carry out a management system

for Federal agency coordination which would implement the Federal policy towards Lake Tahoe.

2) Provide a clearinghouse review for all Federal grant programs.

3) Oversee the land acquisition and land exchange plan and strategy by developing priorities in conjunction with the Federal agencies, TRPA, and the states; facilitate the interagency exchange of lands; and coordinate the implementation of the acquisition plan.

4) Provide daily working relations with TRPA and marshal the resources of the entire Federal Administrative structure to assist TRPA's planning, regulatory, and enforcement activities.

The Executive Order would further specify that financial support for the Federal Administrator would be derived from individual Federal agency budgets and channeled through the Western Federal Regional Council.

With the central authority to speak and act for the entire Federal government in implementing a Federal policy for the Lake Tahoe Basin, the Administrator would have one vote on the TRPA Governing Body.

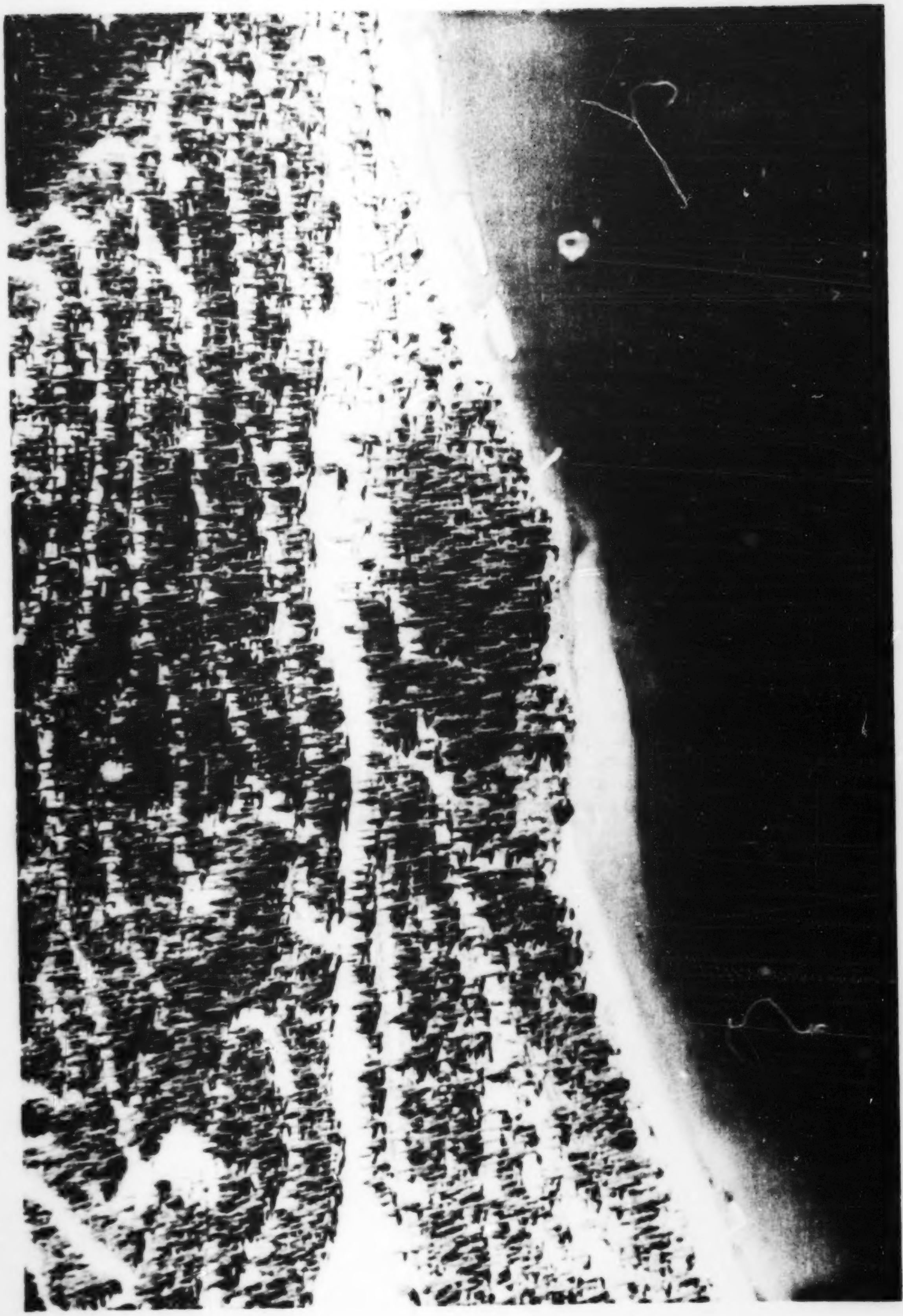
AIR QUALITY PROGRAM

The existing jurisdictional split of air pollution control authority, and the interstate nature of the air basin warrant the development of an air quality program specifically tailored to the Tahoe situation. A Tahoe air quality program could be developed in two phases:

Phase I - Continue to vest the air pollution control function in the respective state agencies and in the local air pollution control districts; while constituting an interstate air pollution planning function for the Tahoe Basin.

Phase II - At the completion of the air pollution planning cycle, constitute both an interstate planning and control function for the Tahoe Basin.

The TRPA has separate authority under the Compact to carry out an air quality planning and control function. The appropriateness of TRPA as an interstate air pollution planning agency is shown by the capability to relate air pollution to a detailed land use plan and to incorporate air quality as an integral part of the Transportation Plan now under preparation. This planning program would lead to the development of an air implementation plan to achieve the National Ambient Air Quality Standards; and perhaps, more importantly, self-imposed higher air quality standards for the Tahoe Basin.



WATER QUALITY PROGRAM

Given that the quality of the waters of Lake Tahoe initimately depends on the integrity of the land in the watershed, a water quality control program must consider both land use controls and waste discharge controls. The Tahoe water quality program could accordingly be developed using the following strategy:

a. Focus principally on source controls to prevent conditions of erosion or erosion potential from occurring.

b. Apply effluent limitations to any "discharge" from a parcel of land. The limitations would be placed on both point discharges and area (diffuse) discharges.

c. Hold water quality standards in the receiving waters inviolate.

At each step in carrying out this strategy, different agencies in different levels of government are involved - local and regional entities will be the principals in source controls, state and Federal entities will be the principals in effluent limitations and water quality standards. Due to the large matrix of governmental agency involvement, memoranda of understanding between agencies could be signed wherein specific roles and responsibilities would be delineated.

The strategy is focused principally upon the control of erosion and waste discharges which result from activities on private lands. Activities on the public lands may result in similar water quality impacts as activities on the private lands. The Federal agencies could carry out an intergovernmental cooperative program to control erosion and waste discharges which result from use activities on the public lands. Again, memoranda of understanding between the various Federal agencies could be signed to delineate specific roles and responsibilities.

SOURCE CONTROLS

The Tahoe Regional Plan and ordinances provide a basic foundation for source controls. The Plan allocates land uses under the constraints of land capability; and the ordinances provide performance standards for allowable impervious surface coverage, vegetation disturbance, tree removal, slope, grading, cut and fill sections, etc.

While it is *implicit* that the Plan and ordinances are designed to prevent and/or mitigate erosion and thus preclude downstream water quality degradation, there is a present need to make it *explicit* by means of specifying precise source control measures prior to individual development approvals.

While TRPA is already doing this in part, the California Lahontan Board under authority of Section 13360 of Division 7 of the California Water Code is also trying to prescribe source controls on new development. While the Lahontan Board does not have access to the development decision process, TRPA certainly occupies the key position. For increased efficiency and effectiveness TRPA and Lahontan could jointly specify source control measures prior to development decision. Such source control measures would then be subject to dual enforcement - under TRPA ordinance or under California Water Code.

Reliance upon source controls via TRPA will not be sucessful in the absence of aggressive field inspection for compliance and enforcement of violations. These activities must be adequately funded; accordingly, in any refinancing of the TRPA budget, inspection and enforcement should have a high priority. [See Compact changes, Section C.]

To assist in carrying out source control measures, various Federal and state efforts could be applied:

a) Research and demonstration grants from EPA and/or Department of Agriculture to develop and demonstrate source control mechanisms which would be effective in the specific (and unique) Tahoe environment. EPA is presently reviewing a proposal from TRPA to demonstrate the feasibility of controlling surface water runoff to Lake Tahoe.

b) Training programs from Federal and/or State Department of Labor to train designers, engineers, contractors, and equipment operators in the ecological sensitivities of the Tahoe Basin, and how to carry out their activities to minimize ecological impact.

c) A program of state licensing and performance bonding could be instituted to cover all construction activity in the Tahoe Basin.

d) Increase Federal funding to the Soil Conservation Service to increase the capability of the local soil conservation districts to provide advice and technical assistance in the control of erosion.

EFFLUENT LIMITATIONS

The California Water Quality Standards contain prohibitions on discharge of solid and liquid waste materials including soil, silt, clay, and other organic and earthen materials to Lake Tahoe or to tributary streams. The Lahontan Board, under authority of Division 7, Chapter 4 and 5, of the California Water Code, is prescribing waste discharge requirements which either specify an allowable quantity/quality of discharge or a prohibition on discharge. The Lahontan Board would continue to agressively carry out this authority.

The Nevada Regulations Governing the Lake Tahoe Watershed specify a prohibition on discharge of trash, debris, or waste of any kind, liquid or solid, into the waters of Lake Tahoe. Further, the authority to issue permits for construction in the Lake Tahoe Watershed could be developed as a mechanism to either specify an allowable discharge or prohibit such a discharge.

To conform water quality standards across the California-Nevada stateline, EPA, under authority of Section 303 of the Federal Water Pollution Control Act of 1972 (FWPCA), will be proposing a new "turbidity standard" for the Nevada Lake Tahoe waters. The new standard will specify the same language as the California standards with respect to prohibitions on discharges. This action will further strengthen the ability of Nevada to institute an effluent limitation program.

The California Department of Fish and Game, using the California Fish and Game Code, could provide important back-up authority to Lahontan's program by issuing pollution abatement orders to stop the discharge of materials deleterious to fish and wildlife. However, the Department would need a specific statutory definition of silt and sediment as "materials deleterious to fish and wildlife" for this approach to be successful.

The National Pollutant Discharge Elimination System (NPDES) constituted under the Federal Water Pollution Control Act Amendments of 1972 (FWPCA) could have applicability to the limitation of discharges despite its present legal limitation to "point" sources. The EPA, SWRCB, and BEH could begin inspection and inventory of what are presently called non-point sources of pollution to define as point source discharges. For example, if sediment-laden runoff is channeled into a culvert under a road and discharges to the lake, the discharge may be defined as a point source subject to an NPDES permit. The permit would specify the allowable quantity/quality of discharge, and is directly enforceable.

Physical runoff/storm drainage facilities could be constructed to channel non-point runoff into point source discharges. This may provide the dual opportunity to treat such runoff prior to discharge and to permit such discharge under NPDES. Such storm drainage facilities are eligible for Federal grant funding by definition under Section 212(2)(B) of the FWPCA of 1972. Storm drainage districts, created under enabling legislation in each state, could raise local revenues to construct and operate such system and could receive Federal assistance grants.

WATER QUALITY STANDARDS

As a final backup to source controls and effluent limitations, enforcement actions to hold water quality standards inviolate and to implement the non-degradation policy of the water quality standards could be undertaken. The states presently have the authority under state law and state regulations to enforce water quality standards violations. The California Water Code, for example, provides authority to issue cease and desist orders; with recourse to the state courts if necessary.

The NPDES permits issued either by EPA in Nevada or SWRCB in California are directly enforceable under Section 309 of the Federal Water Pollution Control Act of 1972. The NPDES permits are written so as to achieve and maintain receiving water quality standards. In the event of violations of the permit requirements, enforcement would be directed against the permitee to achieve compliance.

As a supplement to the water quality standards approach, there is a need for analysis and presentation of continuously collected environmental data. In view of the non-degradation policy, recurring examination of water quality data is needed to detect incremental changes and to "trigger" corrective action. The existing interagency monitoring network could be modified and expanded with increased emphasis on tributary stream and littoral lake surveillance and decreased attention to limnetic changes.

Section 305(b) FWPCA could be the primary mechanism for inventorying and reporting water quality conditions - annual reports of the Lake Tahoe's waters are made to Congress. These 305(b) reports are the primary environmental oversight tool available to Congress; accordingly, the Lake Tahoe data will be of great importance to assess the success of efforts to control erosion and sedimentation.

LAND ACQUISITION

In order to achieve the mandate of the Compact to "preserve the scenic and recreational opportunities of the Region," land acquisition must be considered as a most important implementation tool. Clearly, attainment of the objectives of the Tahoe Regional Plan requires the public acquisition of some lands which are now privately owned.

PRIORITIES

The land acquisition program should not be used as a substitute for effective land use regulation. One method of establishing a balance between acquisition and regulation; and at the same time developing priority criteria for acquisition, could be derived from the concepts of public harm in contrast to public benefit.

The land use regulatory system embodied in the Tahoe Regional Plan principally uses land capabilities to protect the public interest affected by the use of private property, not to create a benefit for the public, but to prevent a harm from a change in the natural character of such property. Regulations to control land use to prevent pollution and to protect the waters of Lake Tahoe from degradation are valid police power enactments. Accordingly, effective land use regulation is appropriate (but may not always be sufficient) to preserve and protect the following lands and thus prevent pollution of the waters of Lake Tahoe.

1. Natural resource areas such as stream environment zones, wetlands, meadows, alpine vegetation and unique ecological associations, and forest lands of the watershed.

2. Natural hazard areas such as flood plains, earthquake faults, avalanches, unstable soils and steep rock fall areas, and fire risk areas.

On the other hand, where private lands are designated for public access and public recreational use, a public benefit is created and acquisition may be necessary. While some public access may be provided through regulation (mandatory dedication), public use should be provided through some form of acquisition.

It is generally recognized that the public lands in the Lake Tahoe Basin are inadequate to meet the needs of the general public for lakeshore recreation opportunities. Much of the public land is in the rugged backdrop areas of the Basin and 90 percent has been classified as high hazard land on which recreation facilities should not be developed. Public access to the shoreline of Lake Tahoe is significantly limited. While 20 miles of the 75 mile shoreline is in public ownership, only about 6 miles is capable of moderate to intensive use and access by the public.

Accordingly, an acquisition program should focus on the following types of lands in the priority indicated:

1. High capability lakeshore and waterfront properties for public access and use.
2. Lands suitable for campground, picnic, and other outdoor recreational facilities development.
3. Lands on which development is imminent and which threatens to adversely affect the environmental values of National Forest or State Park lands.
4. Lands in the back country needed to consolidate public ownership, and lands in the shorezone needed to protect scenic vistas.

FORM OF ACQUISITION

Acquisition could take many forms. The principal forms considered here are:

1. fee simple purchase;
2. land exchange; and
3. less-than-fee simple purchase of development rights, access rights, scenic easements, etc.

INSTITUTIONAL OPTIONS

There are several institutional options for acquiring, holding, and managing public lands in the Tahoe Basin. In fact, it could be possible for one body to acquire and hold, while another body managed the lands. Accordingly, the following options should not be considered as mutually exclusive, but available for combination with each other into an overall acquisition strategy.

1. The U.S. Forest Service: The USFS is presently the major land holder in the Basin and has authority to acquire and hold lands provided that such lands are within the National Forest boundaries. Lands may be acquired in fee, by exchange, and/or by donations of land. The USFS may not accept donations of cash to purchase lands. Management of acquired lands will be guided by the "General Plan of Management for National Forest Lands in the Lake Tahoe Basin". The Forest Service is precluded by statute from expending Federal funds in managing lands which they do not own.

2. State Parks: The California Department of Parks and Recreation and the Nevada Division of State Parks may acquire, hold, and manage lands. Acquisition is authorized by the legislature and funds appropriated from the General Fund and/or other special acquisition funds. State funds may be used to match Federal grants from the Land and Water Conservation Fund. The states may use eminent domain powers to condemn lands for State Park purposes. Management of the lands is for the purpose of public recreation and usually requires the development of recreational facilities and services.

3. General Purpose Local Governments: Local governments may acquire, hold, and manage lands. Acquisition is usually specifically authorized by the electorate and uses the bonding capacity of the local government to finance the acquisition. The local government may be the recipient of Open Space Grants from HUD and grant monies from the Land and Water Conservation Fund which have been allocated through the states. Gifts and donations may be accepted. The lands are usually managed to provide local recreational services.

4. Tahoe Conservancy Agency: With passage of AB 1944 on October 1, 1973 in the California legislature, the California Tahoe Conservancy Agency was created. It is composed of five public members, appointed by the Governor, with responsibility and authority to acquire and hold real property in the California portion of the Basin. AB 1944 authorizes the appropriation of funds for acquisition. The Agency may acquire interests in land by means of exchanges, and may accept land and cash gifts and donations from public and private sources. Management of the lands so acquired will be performed by contract with other public agencies.

   AB 1944 also provides for establishment of a Bi-State Tahoe Conservancy Compact upon adoption of similar legislation by Nevada and approval of the Compact by Congress.

SOURCES OF FUNDS

There are several options available in funding sources. Some of the sources are direct while others, such as tax schemes, operate indirectly. Some of the sources are definitive while others are ideas. The following list indicates the range of possible sources which are available, may be available, or may be developed.

Authorized and Funded

1. Land and Water Conservation Fund: The Fund is authorized to expend monies for Federal land acquisition and provide 50% matching grants to states and localities. The Fund has been a major source of acquisition monies in the Basin. The FY 74 national appropriation is $71 million of which $66 million goes for assistance to the states. No Federal acquisitions were appropriated in FY 74. However, a reprogramming of funds for a Federal land acquisition program was accomplished such that roughly $4 million is available during FY 74 to the U.S. Forest Service for land acquisition in the California portion of the Tahoe Basin.

The Department of Interior in its report "Lake Tahoe - A Special Place" dated January 1973, states that priority consideration will be given to any Land and Water Conservation Fund projects from California and Nevada dealing with the Tahoe Basin.

2. Land Exchange: Exchange is a very attractive option for acquisition in that it requires no cash outlay and offers owners savings in capital gains taxes. Exchange could take various forms:

   a) exchange of National Forest Lands outside the Basin, classified as suitable for the purpose, for private lands within the Basin;

   b) exchange of National Forest timber cutting rights outside the Basin for private land within the Basin;

   c) exchange of Federal excess properties such as GSA real estate and surplus military lands for private land within the Basin; and

   d) exchange of public domain lands administered by Bureau of Land Management, classified as suitable for the purpose, for private lands within the Basin.

   Exchange proceedings are not without problems, however. The time involved is very lengthy and the proceedings, often involving several parties, are cumbersome.

3. Private Donations: Donations of lands and gifts of cash for land acquisition can be a significant source. The example of the Nature Conservancy indicates the potential for successfully marshaling private resources into public acquisition. It must be made attractive for individuals to contribute land or cash; accordingly, the following items should be considered:

   a) a donation of land may involve a life estate wherein the grantor may continue to reside on the land for the duration of his lifetime;

b) a donation of development rights and easements could decrease the assessed value of the property and thus benefit the grantor by lower holding costs, reduced annual income taxes, and reduced capital gains tax at the time of property resale;

c) a donation of land could be eligible for a charitable deduction under Federal income tax codes. (In addition, the proposed Environmental Protection Tax Act of 1973 provides in part for allowance of a tax deduction on the transfer of a partial interest in property, where the interest is either an easement of 30 or more years duration granted exclusively for conservation purposes, or is a remainder interest in real property which is granted exclusively for conservation purposes. "Conservation purposes" mean the preservation of open land areas for public outdoor recreation or education, or scenic enjoyment; the preservation of historically important land areas or structures; or the protection of natural environmental systems.)

d) a donation of land could be eligible for a credit to estate valuation. Presently this procedure does not conform to the estate tax codes, although the cash contribution from liquidation of the land is eligible.

4. California State Beach, Park, Recreation, and Historical Facilities Fund of 1974: AB 1944 (October 1973) appropriates $10 million from this Fund for specific acquisition of lands in the Tahoe Basin.

Authorized But Not Funded

5. Open Space Grants: Federal grant funds for open space land acquisition are available under PL 87-70 from the Department of Housing and Urban Development to states and local public bodies. The grants provide 50% of the cost. Eligibility is limited to areas certified by HUD as having adopted Open Space Plans.

Not Authorized and Not Funded

6. U.S. Treasury: Congressional authorization and appropriation by special legislation for specific land purchases.

7. State General Funds: Funds must be specifically authorized and appropriated by the state legislature for acquisition. Tahoe must therefore compete with priority needs in the remainder of the state. Funds appropriated are usually designed to match Federal grants from the Land and Water Conservation Fund.

8. California Park and Open Space Acquisition Fund: Such a Fund was proposed by AB 920 in the 1973 session of the legislature but was not reported out. The Fund would be based upon a 1% real estate transfer tax to supply regular monies to cities and counties for parks and open space acquisition. It remains a viable acquisition option as passage may be secured in the next session.

9. Environmental Tax Credit: Existing property in non-conforming status with respect to the Tahoe Regional Plan could be purchased by means of a tax credit against Federal income taxes. At a rate of 4% per year applied to the value of land and capital improvements, the property could be "acquired" in 25 years.

SPECIAL CONSIDERATIONS

To avoid burdening the acquisition program with extra costs due to inflation and speculation in land values, several possible means are available or could be developed.

1. Condemnation: Condemnation proceedings by the Federal government or the state would result in a price based on fair market value. If necessary, the court may resolve the "fair" price to be paid.
2. Legislative Taking: The precedent used in acquiring Redwoods National Park may be involved. The Congress could freeze the price of lands upon the enactment of legislation to acquire such lands.
3. Public's First Right of Purchase: By means of legislation, grant to the public agency a right of pre-emption whenever ownership of real property is transferred. The public agency would have a specified time after the acceptance of a valid and qualified purchase offer to decide whether to exercise its right of pre-empting the purchase. The negotiated price would be binding.
4. Purchase with Options for Additional Lands: Public agency provides a down payment which acts as payment for the release (fee interest) of a portion of the desired land and for options on the remaining land. The option arrangement allows the public agency to hold the land for possible purchase at a fixed price thus avoiding costs of inflation in land values.

SUMMARY

An overall acquistion program may be a mix of all the above institutional options and sources of funding. Considerable further work is necessary to refine the acquisition strategy, particularly with respect to legal problems of Federal tax codes and their applicability to certain areas. In any case, time is of the essence. The value of private lands is increasing and private development proposals are moving ahead. If a broad program of strategic land acquisition is not carried out in the near future, available land will be either lost or the prices will be prohibitive.

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APPENDIX A

PL 91-148

DECEMBER 18, 1969

AN ACT

To grant the consent of the Congress to the Tahoe Regional Planning Compact, to authorize the Secretary of the Interior and others to cooperate with the planning agency thereby created, and for other purposes.

BE IT ENACTED BY THE SENATE AND HOUSE OF REPRESENTATIVES OF THE UNITED STATES OF AMERICA IN CONGRESS ASSEMBLED, that in order to encourage the wise use and conversation of the waters of Lake Tahoe and of the resources of the area around said lake, the consent of the Congress is hereby given to the Tahoe Regional Planning Compact heretofore adopted by the States of California and Nevada, which compact reads as follows:

"TAHOE REGIONAL PLANNING AGENCY

"Article I. Findings and Declarations of Policy

"(a) It is found and declared that the waters of Lake Tahoe and other resources of the Lake Tahoe region are threatened with deterioration or degeneration, which may endanger the natural beauty and economic productivity of the region.

"(b) It is further declared that by virtue of the special conditions and circumstances of the natural ecology, developmental pattern, population distribution, and human needs in the Lake Tahoe region, the region is experiencing problems of resource use and deficiencies of environmental control.

"(c) It is further found and declared that there is a need to maintain an equilibrium between the region's natural endowment and its manmade environment, to preserve the scenic beauty and recreational opportunities of the region, and it is recognized that for the purpose of enhancing the efficiency and governmental effectiveness of the region, it is imperative that there be established an areawide planning agency with power to adopt and enforce a regional plan of resource conservation and orderly development, to exercise effective environmental controls and to perform other essential functions, as enumerated in this title.

"Article II. Defintions

"As used in this compact:

"(a) 'Region' includes Lake Tahoe, the adjacent parts of the Counties of Douglas, Ormsby, and Washoe lying within the Tahoe Basin in the State of Nevada, and the adjacent parts of the Counties of Placer and El Dorado

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lying within the Tahoe Basin in the State of California, and that additional and adjacent part of the County of Placer outside of the Tahoe Basin in the State of California which lies southward and eastward of a line starting at the intersection of the basin crestline and the north boundary of Section 1, thence west to the northwest corner of Section 3, thence south to the intersection of the basin crestline and the west boundary of Section 10; all sections referring to Township 15 North, Range 16 East, M.D.B. & M. The region defined and described herein shall be as precisely delinated on official maps of the agency.

"(b) 'Agency' means the Tahoe Regional Planning Agency.

"(c) 'Governing Body' means the governing board of the Tahoe Regional Planning Agency.

"(d) 'Regional plan' shall mean the long term general plan for the development of the region.

"(e) 'Interim plan' shall mean the interim regional plan adopted pending the adoption of the regional plan.

"(f) 'Planning commission' means the advisory planning commission appointed pursuant to paragraph (h) of Article III.

"Article III. Organization

"(a)" There is created the Tahoe Regional Planning Agency as a separate legal entity.

"The governing body of the agency shall be constituted as follows:

"One member appointed by each of the County Boards of Supervisors of the Counties of El Dorado and Placer and one member appointed by the City Council of the City of South Lake Tahoe. Each member shall be a member of the city council or county board of supervisors which he represents and, in the case of a supervisor, shall be a resident of a county supervisorial district lying wholly or partly within the region.

"One member appointed by each of the boards of county commissioners of Douglas, Ormsby, and Washoe Counties. Any member so appointed shall be a resident of the county from which he is appointed and may be, but is not required to be:

"(1) A member of the board which appoints him; and

"(2) A resident of or the owner of real property in the region, as each board of county commissioners may in its own discretion determine. The manner of selecting the person so to be appointed may be further prescribed by county ordinance. A person so appointed shall before taking his seat on the governing body disclose all his economic interests in the region, and shall thereafter disclose any further economic interest which he acquires, as soon as feasible after he acquires it. If any board or county commssioners fail to make an appointment required by this paragraph within 30 days after the effective date of this act or the occurrence of a vacancy on the governing body, the governor shall make such appointment. The position of a member appointed by a board of county commissioners shall be deemed vacant if such member is absent from three consecutive meetings of the governing body in any calendar year.

"One member appointed by the Governor of California and one member appointed by the Governor of Nevada. The appointment of the California member is subject to Senate confirmation; he shall not be a resident of the region and shall represent the public at large. The member appointed by the Governor of Nevada shall not be a resident of the region and shall represent the public at large.

"The Administrator of the California Resources Agency or his designee and the Director of the Nevada Department of Conservation and Natural Resources or his designee.

"(b) The members of the agency shall serve without compensation, but the expenses of each member shall be met by the body which he represents in accordance with the law of that body. All other expenses incurred by the governing body in the course of exercising the powers conferred upon it by this compact unless met in some other manner specifically provided, shall be paid by the agency out of its own funds.

"(c) The term of office of the members of the governing body shall be at the pleasure of the appointing authority in each case, but each appointment shall be reviewed no less often than every 4 years.

"(d) The governing body of the agency shall meet at least monthly. All meetings shall be open to the public to the extent required by the law of the State of California or the State of Nevada, whichever imposes the greater requirement, applicable to local governments at the time such meeting is held. The governing body shall fix a date for its regular monthly meeting in such terms as 'the first Monday of each month,' and shall not change such date oftener than once in any calendar year. Notice of the date so fixed shall be given by publication at least once in a newspaper or combination of newspapers whose circulation is general throughout the region and in each county a portion of whose territory lies within the region. Notice of any special meeting except an emergency meeting, shall be given by so publishing the date, place, and agenda at least 5 days perior to the meeting.

"(e) The position of a member of the governing body shall be considered vacated upon his loss of any of the qualifications required for his appointment and in such event the appointing authority shall appoint a successor.

"(f) The governing body shall elect from its own members a chairman and vice chairman, whose terms of office shall be two years, and who may be reelected. If a vacancy occurs in either office, the governing body may fill such vacancy for the unexpired term.

"(g) A majority of the members of the governing body from each state shall constitute a quorum for the transaction of the business of the agency. A majority vote of the members present representing each state shall be required to take action with respect to any matter. The vote of each member of the governing body shall be individually recorded. The governing body shall adopt its own rules, regulations and procedures.

"(h) An advisory planning commission shall be appointed by the agency, which shall consist of an equal number of members from each state. The commission shall include but shall not be limited to: the chief planning officers of Placer County, El Dorado County, and the City of South Lake Tahoe in California and the Counties of Douglas, Ormsby, and Washoe in Nevada, the Placer County Director of Sanitation, the El Dorado County Director of Sanitation, the county health officer of Douglas County or his designee, the county health officer of Washoe County or his designee, the Chief of the Bureau of Environmental Health of the Health Division of Department of Health, Welfare, and Rehabilitation of the State of Nevada or his designee, executive officer of the Lahontan Regional Water Qualtiy Control Board or his designee, the executive officer of the Tahoe Regional Planning Agency who shall act as chairman and at least four lay members each of who shall be a resident of the region.

"(i) The agency shall establish and maintain an office within the region. The agency may rent or own property and equipment. Every plan, ordinance and other record of the agency which is of such nature as to constitute a public record under the law of either the State of California or the State of Nevada shall be open to inspection and copying during regular office hours.

"(j) Each authority charged under this compact or by the law of either state with the duty of appointing a member of the governing body of the agency shall by certified copy of its resolution or other action notify the Secretary of State of its own state of the action taken. Upon receipt of certified copies of the resolutions or notifications appointing the members of the governing body, the Secretary to State of each respective state shall notify the Governor of the state who shall, after consultation with the Governor of the other state, issue a concurrent call for the organization meeting of the governing body at a location determined jointly by the two governors.

"(k) Each state may provide by law for the disclosure or elimination of conflicts of interest on the part of members of the governing body appointed from that state.

"Article IV. Personnel

"(a) The governing body shall determine the qualification of, and it shall appoint and fix the salary of, the executive officer of the agency, and shall employ such other staff and legal counsel as may be necessary to execute the powers and functions provided for under this act or in accordance with any intergovernmental contracts or agreements the agency may be responsible for administering.

"(b) Agency personnel standards and regulations shall conform insofar as possible to the regulations and procedures of the civil service of the State of California or the State of Nevada, as may be determined by the governing body of the agency, and shall be regional and bistate in application and effect; provided that the governing body may, for administrative convenience and at its discretion, assign the administration of designated personnel arrangements to an agency of either state, and provided that administratively convenient adjustments be made in the standards and regulations governing personnel assigned under intergovernmental agreements.

"(c) The agency may establish and maintain or participate in such additional programs of employee benefits as may be appropriate to afford employees of the agency terms and conditions of employment similar to those enjoyed by employees of California and Nevada generally.

"Article V. Planning

"(a) In preparing each of the plans required by this article and each amendment thereto, if any, subsequent to its adoption, the planning commission after due notice shall hold at least one public hearing which may be continued from time to time, and shall review the testimony and any written recommendations presented at such hearing before recommending the plan or amendment. The notice required by this paragraph shall be given at least 20 days prior to the public hearing by publication at least once in a newspaper or combination of newspapers whose circulation is general throughout the region and in each county a portion of whose territory lies within the region.

"The planning commission shall then recommend such plan or amendment to the governing body for adoption by ordinance. The governing body may adopt, modify or reject the proposed plan or amendment, or may initiate and adopt a plan or amendment without referring it to the planning commission. If the governing body initiates or substantially modifies a plan or amendment, it shall hold at least one public hearing thereon after due notice as required in this paragraph.

"If a request is made for the amendment of the regional plan by:

"(1) A political subdivision a part of whose territory would be affected by such amendment; or

"(2) The owner or lessee of real property which would be affected by such amendment,

the governing body shall complete its action on such amendment within 60 days after such request is delivered to the agency.

"(b) Within 15 months after the formation of the agency, the planning commission shall recommend a regional plan. Within 18 months after the formation of the agency, the governing body shall adopt a regional plan. After adoption, the planning commission and governing body shall continuously review and maintain the regional plan. The regional plan shall consist of a diagram, or diagrams, and text, or texts setting forth the projects and proposals for implementation of the regional plan, a description of the needs and goals of the region and a statement of the policies, standards and elements of the regional plan.

"The regional plan shall include the following correlated elements:

"(1) A land use plan for the integrated arrangement and general location and extent of, and the criteria and standards for, the uses of land, water, air, space, and other natural resources within the region, including but not limited to, an indication or allocation of maximum population densities.

"(2) A transportation plan for the integrated development of a regional system of transportation, including but not limited to, freeways, parkways, highways, transportation facilities, transit routes, waterways, navigation and aviation aids and facilities, and appurtenant terminals and facilities for the movement of people and goods within the region.

"(3) A conservation plan for the preservation, development, utilization, and management of the scenic and other natural resources within the basin, including but not limited to, soils, shoreline and submerged lands, scenic corridors along transportation routes, open spaces, recreational and historical facilities.

"(4) A recreation plan for the development, utilization and management of the recreational resources of the region, including but not limited to, wilderness and forested lands, parks and parkways, riding and hiking trails, beaches and playgrounds, marinas and other recreational facilities.

"(5) A public services and facilities plan for the general location, scale and provision of public services and facilities, which, by the nature of their function, size, extent and other characteristics are necessary or appropriate for inclusion in the regional plan.

"In formulating and maintaining the regional plan, the planning commission and governing body shall take account of and shall seek to harmonize the needs of the region as a whole, the plans of the counties and cities within the region, the plans and planning activities of the state, federal and other public agencies and nongovernmental agencies and organizations which affect or are concerned with planning and development within the region. Where necessary for the realization of the regional plan, the agency may engage in collaborative planning with local governmental jurisdictions located outside the region, but contiguous to its boundaries. In formulating and implementing the regional plan, the agency shall seek the cooperation and consider the commendations of counties and cities and other agencies of local government, of state and federal agencies, of educational institutions and research organizations, whether public or private, and of civic groups and private individuals.

"(c) All provisions of the Tahoe regional general plan shall be enforced by the agency and the states, counties in the region.

"(d) Within 60 days after the formation of the agency, the planning commission shall recommend a regional interim plan. "Within 90 days after the formation of the agency, the governing body shall adopt a regional interim plan. The interim plan shall consist of statements of development policies, criteria and standards for planning and development, of plans or portions of plans and projects and planning decisions, which the agency finds it necessary to adopt and administer on an interim basis in accordance with the substantive powers granted to it in this agreement.

"(e) The agency shall maintain the data, maps and other information developed in the course of formulating and administering the regional plan and interim plan, in a form suitable to assure consistent view of development trends and other relevant information for the availability of and use by other agencies of government and by private organizations and individuals concerned.

"(f) All provisions of the interim plan shall be enforced by the agency and by the states, the counties and cities.

"Article VI. Agency's Powers

"(a) The governing body shall adopt all necessary ordinances, rules, regulations and policies to effectuate the adopted regional and interim plans. Every such ordinance, rule or regulation shall establish a minimum standard applicable throughout the basin, and any political subdivision may adopt and enforce an equal or higher standard applicable to the same subject of regulation in its territory. The regulations shall contain general, regional standards including but not limited to the following: water purity and clarity; subdivision, zoning; tree removal; solid waste disposal; sewage disposal; land fills, excavations, cuts and grading; piers, harbors, breakwaters, or channels and other shoreline developments; waste disposal in shoreline areas, waste disposals from boats; mobile home parks; house relocation; outdoor advertising; flood plain protection; soil and sedimentation control; air pollution; and watershed protection. Whenever possible without diminishing the effectiveness of the interim plan or the general plan, the ordinances, rules, regulations and policies shall be confined to matters which are general and regional in application, leaving to the jurisdiction of the respective states, counties and cities the enactment of specific and local ordinances, rules, regulations and policies which conform to the interim or general plan.

"Every ordinance adopted by the agency shall be published at least once by title in a newspaper or combination of newspaper whose circulation is general throughout the region. Except an ordinance adopting or amending the plan or the regional plan, no ordinance shall become effective until 60 days after its adoption. Immediately after its adoption, a copy of each ordinance shall be transmitted to the governing body of each political subdivision having territory within the region.

"Interim regulations shall be adopted within 90 days from the formation of the agency and final regulations within 18 months after the formation of the agency.

"Every plan, ordinance, rule, regulation or policy adopted by the agency shall recognize as a permitted and forming use any business or recreational establishment which is required by law of the state in which it is located to be individually licensed by the state, if such business or establishment:

"(1) Was so licensed on February 5, 1968, or was licensed for a limited season during any part of the calendar year immediately preceding February 5, 1968.

"(2) Is to be constructed on land which was so zoned or designated in a finally adopted master plan on February 5, 1968, as to permit the construction of such a business or establishment.

"(b) All ordinances, rules, regulations and policies adopted by the agency shall be enforced by the agency and by the respective states, counties and cities. The appropriate courts of the respective states, each within its limits of territory and subject matter provided by state law, are vested with jurisdiction over civil actions to which the agency is a party and criminal actions for violations of its ordinances. Each such action shall be brought in a court of the state where the violation is committed or where the property affected by a civil action is situated, unless the action is brought in a federal court. For this purpose, the agency shall be deemed a political subdivision of both the State of California and the State of Nevada.

"(c) Except as otherwise provided in paragraph (d), all public works projects shall be reviewed prior to construction and approved by the agency as to the project's compliance with the adopted regional general plan.

"(d) All plans, programs and proposals of the State of California or Nevada, or of its executive or administrative agencies, which may substantially affect or may specifically apply, to the uses of lands, water, air, space and other natural resources in the region, including but not limited to public works plans, programs and proposals concerning highway routing, design and construction, shall be referred to the agency for its review, as to conformity with the regional plan or interim plan, and for report and recommendations by the agency to the executive head of the state agency concerned and to the Governor. A public works project which is initiated and is to be constructed by a department of either state shall be submitted to the agency for review and recommendation, but may be constructed as proposed.

"(e) The agency shall police the region to ensure compliance with the general plan and adopted ordinances, rules, regulations and policies. If it is found that the general plan, or ordinances, rules, regulations and policies are not being enforced by a local jurisdicition, the agency may bring action in a court of competent jurisdiction to ensure compliance.

"(f) Violation of any ordinance of the agency is a misdemeanor.

"(g) The agency is hereby empowered to initiate, negotiate and participate in contracts and agreements among the local governmental authorities of the region, or any other intergovernmental contracts or agreements authorized by state or federal law.

"(h) Each intergovernmental contract or agreement shall provide for its own funding and staffing, but this shall not preclude financial contribuitons from the local authorities concerned or from supplementary sources.

"(i) Whenever a new city is formed within the region, the membership of the governing body shall be increased by two additional members, one appointed by, and who shall be a member of, the legislative body of the new city, and one appointed by the Governor of the state in which the city is not located. A member appointed by the Governor of California is subject to Senate confirmation.

"(j) Every record of the agency, whether public or not, shall be open for examination to the Legislative Analyst of the State of California and the Fiscal Analyst of the State of Nevada.

"(k) Whenever under the provisions of this article or any ordinance, rule, regulation or policy adopted pursuant thereto, the agency is required to review or approve any proposal, public or private, the agency shall take final action, whether to approve, to require modification or to reject such proposal, within 60 days after such proposal is delivered to the agency. If the agency does not take final action within 60 days, the proposal shall be deemed approved.

Article VII. Finances

"(a) Except as provided in paragraph (e), on or before December 30 of each calendar year the agency shall establish the amount of money necessary to support its activities for the next succeeding fiscal year commencing July 1 of the following year. The agency shall apportion not more than $150,000 of this amount among the counties within the region on the same ratio to the total sum required as the full cash valuation of taxable property within the region in each county bears to the total full cash valuation of taxable property within the region. Each county in California shall pay the sum allotted to it by the agency from any funds available therefor and may levy a tax on any taxable property within its boundaries sufficient to pay the amount so allocated to it. Each county in Nevada shall pay such sums from its general fund or from any other moneys available therefor.

"(b) The agency may fix and collect reasonable fees for any services rendered by it.

"(c) The agency shall be strictly accountable to any county in the region for all funds paid by it to the agency and shall be strictly accountable to all participating bodies for all receipts and disbursements.

"(d) The agency is authorized to receive gifts, donations, subventions, grants, and other financial aids and funds.

"(e) As soon as possible after the ratification of this compact, the agency shall estimate the amount of money necessary to support its activities:

"(1) For the remainder of the then-current fiscal year; and

"(2) If the first estimate is made between January 1 and June 30, for the fiscal year beginning on July 1 of that calendar year.

"The agency shall then allot such amount among the several counties, subject to the restriction and in the mannner provided in paragraph (a), and each county shall pay such amount.

"(f) The agency shall not obligate itself beyond the moneys due under this article for its support from the several counties for the current fiscal year, plus any moneys on hand or irrevocably pledged to its support from other sources. No obligation contracted by the agency shall bind either of the party states or any political subdivision thereof.

"Article VII. Miscellaneous

"(a) It is intended that the provisions of this compact shall be reasonably and liberally construed to effectuate the purposes thereof. Except as provided in paragraph (c), the provisions of this compact shall be serverable and if any phrase, clause, sentence or provision of this compact is declared to be contrary to the constitution of any participating state or of the United States or the applicability thereof to any government, agency, person or circumstance is held invalid, the validity of the remainder of this compact and the applicability thereof to any government, agency, person or circumstance shall not be affected thereby. If this compact shall be held contrary to the constitution of any state participating therein, the compact shall remain in full force and effect as to the remaining state and in full force and effect as to the state affected as to all severable matters.

"(b) The agency shall have such additional powers and duties as may hereafter be delegated or imposed upon it from time to time by the action of the Legislature of either state concurred in by the Legislature of the other.

"(c) A state party to this compact may withdraw therefrom by enacting a statute repealling the compact. Notice of withdrawal shall be communicated officially and in writing to the Governor of the other state and to the agency administrators. This provision is not severable, and if it is held to be unconstitutional or invalid, no other provision of this compact shall be binding upon the State of Nevada or the State of California.

"(d) No provision of this compact shall have any effect upon the allocation or distribution of interstate waters or upon any appropriative water right."

Sec. 2. The Secretary of the Interior and the Secretary of Agriculture are authorized, upon request of the Tahoe Regional Planning Agency, to cooperate with said agency in all respects compatible with carrying out the normal duties of their Departments.

Sec. 3. The consent to the compact by the United States is subject to the condition that the President may appoint a nonvoting representative of the United States to the Tahoe Regional Planning governing board.

Sec. 4. Any additional powers conferred on the agency pursuant to Article VII(b) of the compact shall not be exercised unless consented to by the Congress.

Sec. 5. Nothing contained in this Act or in the compact consented to shall in any way affect the powers, rights, or obligations of the United States, or the applicability of law or regulation of the United States in, over, or to the region or waters which are the subject of the compact, or in any way affect rights owned or held by or for Indians or Indian tribes subject to the jurisdiction of the United States.

Sec. 6. The right is hereby reserved by the Congress or any of its standing committees to require the disclosure and furnishing of such information and data by or concerning the Tahoe Regional Planning Agency as is deemed appropriate by the Congress of such committee.

Sec. 7. The right to alter, amend or repeal this Act is expressly reserved.

Approved December 18, 1969.

APPENDIX B

P.L. 92-500

FEDERAL WATER POLLUTION CONTROL ACT AMENDMENTS OF 1972

OCTOBER 18, 1972

SECTION 114

LAKE TAHOE STUDY

"Sec. 114. (a) The Administrator, in consultation with the Tahoe Regional Planning Agency, the Secretary of Agriculture, other Federal agencies, representatives of State and local governments, and members of the public, shall conduct a thorough and complete study on the adequacy of and need for extending Federal oversight and control in order to preserve the fragile ecology of Lake Tahoe.

"(b) Such study shall include an examination of the interrelationships and responsibilities of the various agencies of the Federal Government and State and local governments with a view to establishing the necessity for redefinition of legal and other arrangements between these various governments, and making specific legislative recommendations to Congress. Such study shall consider the effect of various actions in terms of their environmental impact on the Tahoe Basin, treated as an ecosystem.

"(c) The Administrator shall report on such study to Congress not later than one year after the date of enactment of this subsection.

"(d) There is authorized to be appropriated to carry out this section not to exceed $500,000."

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